**Appendix Material**

We provide a simplistic exploration of the selection problem we face. This is a conundrum for all event data and we do not pretend to solve it. The measures we utilize to test for selection problems are also expected to define the likelihood of state response to protest. We include measures that relevant scholarship suggests help define the opportunity for collective action and potential dissidents’ anticipation of repression, and thus apprehension to coordinate protests. The models in Table A21 test two alternative measurements of protests – a binary measure of whether a protest occurs or not and a count of the number of protests per country year – both use the MM Data from the main models. Table A21 explores whether past coercion, crowd dispersal or accommodation are correlated with fewer future protests. Past disregard is the reference category. In the logit regression analysis, we use a t-1 measure of state response; that is, we account for how the state responded to the previous protest whether it was yesterday, last month or last year. In the zero-inflated negative binomial regression analysis, we measure the number of each response type in the previous year. This tests if coercion reduces, or perhaps leads to zero protest events. Perhaps these measures of coercion, accommodation and crowd dispersal predict protests; previous research suggests that repression reduces protests.[[1]](#footnote-1) We include seven variables in the regression equations – Physical Integrity and Physical Integrity Squared [measures of human rights],[[2]](#footnote-2) Polity and Polity Squared,[[3]](#footnote-3) GDP per Capita [ln],[[4]](#footnote-4) Youth Bulge[[5]](#footnote-5) and Geographic Region.[[6]](#footnote-6)

*Head of State* is four-category nominal scale measuring the executive’s source of power; the categories, in ascending order, are monarch, president, military, and other. *Regime Type* accounts for which sector of society controls the government; it is also a four-category nominal scale, in ascending order, civilian, military-civilian, military, and, other.[[7]](#footnote-7) Results are presented in Table A25. An alternative robustness check includes binary variables marking the Government Type as *Party*, *Military*, *Monarchy*, *Personal*, or, *Democracy*.[[8]](#footnote-8) In the robustness check model, Table A26, Military is the reference category and thus omitted from the regression analysis.

For the CIRI based measure, Physical Integrity, higher values correspond to better human rights practices[[9]](#footnote-9), but, for the PTS based measure, Political Terror Scale[[10]](#footnote-10), high scores correspond to worse human rights practices. Results are presented in Table A25. For the Excluded Population we rely on the natural log of the share of the excluded population relative to the ethnopolitically relevant population.[[11]](#footnote-11) These results are in Table A27.

**Tables**

**Table 1: Government Response To Cost Components**

|  |  |  |
| --- | --- | --- |
|  |  | Concession Costs |
|  |  | Low | High |
| Disruption Costs | Low | ***Disregard*** | ***Coercion*** |
| High | ***Accommodation*** | ***Coercion Dominates Accommodation*** |

**Table 2: Multinomial Logit Regression Results**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Dependent Variable= State Response | Model 1 | Model 2 | Model 3 | Model 4 |
| **Base Category (Disregard)** |
|  |  |  |  |  |
| **Crowd Dispersal** |  |  |  |  |
| Concession Costs Index | .616\*\*\* (.055) | .624\*\*\* (.058) | .622\*\*\* (.052) | .631\*\*\* (.054) |
| Disruption Costs Index | -.184\*\*\* (.035) | -.165\*\*\* (.035) | -.177\*\*\* (.033) | -.159\*\*\* (.032) |
| Previous Violence |  |  | .478\*\*\* (.101) | .441\*\*\* (.085) |
| Number of Demands |  |  | -.223\*(.124) | -.189 (.140) |
| Polity |  | -.141\*\* (.052) |  | -.147\*\* (.052) |
| Polity Squared |  | .005\* (.002) |  | .005\* (.002) |
| GDP per Capita (ln)  |  | -.109 (.068) |  | -.085 (.064) |
| Youth Bulge (15-24) |  | .016 (.026) |  | .013 (.026) |
| Constant | -1.59\*\*\* (.250) | -.239 (.847) | -1.57\*\*\* (.295) | -.333 (.825) |
|  |  |  |  |  |
| **Accommodation** |  |  |  |  |
| Concession Costs Index | -.136\*\* (.058) | -.148\*\* (.054) | -.176\*\*(.058) | -.189\*\*\* (.054) |
| Disruption Costs Index | .184\*\*\* (.047) | .195\*\*\* (.048) | .184\*\*\* (.046) | .194\*\*\* (.047) |
| Previous Violence |  |  | .472\*\*\*(.094) | .336\*\*\* (.084) |
| Number of Demands |  |  | .183(.116) | .242\* (.106) |
| Polity |  | -.134\* (.072) |  | -.131\* (.071) |
| Polity Squared |  | .006\* (.003) |  | .006\* (.003) |
| GDP per Capita (ln)  |  | -.255\*\*\* (.080) |  | -.233\*\* (.077) |
| Youth Bulge (15-24) |  | .023 (.035) |  | .028 (.035) |
| Constant | -2.22\*\*\* (.285) | -.210(1.23) | -2.52\*\*\*(.287) | -.778(1.23) |
|  |  |  |  |  |
| **Coercion** |  |  |  |  |
| Concession Costs Index | .889\*\*\* (.075) | .869\*\*\* (.073) | .902\*\*\*(.078) | .887\*\*\* (.079) |
| Disruption Costs Index | -.078\* (.047) | -.036(.047) | -.059(.046) | -.023 (.046) |
| Previous Violence |  |  | .819\*\*\*(.109) | .682\*\*\* (.097) |
| Number of Demands |  |  | -.452\*\*\*(.139) | -.342\* (.151) |
| Polity |  | -.082 (.080) |  | -.088 (.074) |
| Polity Squared |  | .001 (.004) |  | .001 (.003) |
| GDP per Capita (ln) |  | -.214(.140) |  | -.170 (.130) |
| Youth Bulge (15-24) |  | .143\*\*\* (.034) |  | .140\*\*\* (.032) |
| Constant | -3.52\*\*\* (.384) | -3.67\*(1.83) | -3.48\*\*\*(.378) | -3.91\*\* (1.65) |
|  |  |  |  |  |
| N | 9965 | 9522 | 9965 | 9522 |
| Wald χ2 (Prob. > χ2) | 247.75 (0.0000) | 461.05 (0.0000) | 294.92 (0.0000) | 556.83 (0.0000) |
| Country Clusters | 160 | 152 | 160 | 152 |

Robust standard errors in Parentheses clustered by country. Two –tailed significance tests. \*\*\*p≤.001, \*\*p≤.01, \*p≤.05

**Table 3: Multinomial Logit Regression Results, Mixed Response Category Included**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Dependent Variable= State Response | Model 5 | Model 6 | Model 7 | Model 8 |
| **Base Category (Disregard)** |
|  |  |  |  |  |
| **Crowd Dispersal** |  |  |  |  |
| Concession Costs Index | .615\*\*\* (.055) | .622\*\*\*(.058) | .622\*\*\*(.052) | .630\*\*\* (.054) |
| Disruption Costs Index | -.193\*\*\* (.035) | -.175\*\*\* (.035) | -.186\*\*\* (.034) | -.168\*\*\* (.033) |
| Previous Violence |  |  | .478\*\*\*(.102) | .443\*\*\* (.086) |
| Number of Demands |  |  | -.224\*(.126) | -.192(.139) |
| Polity |  | -.142\*\*(.053) |  | -.147\*\*(.052) |
| Polity Squared |  | .005\*(.002) |  | .005\*(.002) |
| GDP per Capita (ln)  |  | -.107(.069) |  | -.083(.065) |
| Youth Bulge (15-24) |  | .013(.026) |  | .009(.026) |
| Constant | -1.58\*\*\* (254) | -.171(.853) | -1.56\*\*\* (.303) | -.265(.832) |
|  |  |  |  |  |
| **Accommodation** |  |  |  |  |
| Concession Costs Index | -.376\*\*\* (.065) | -.373\*\*\* (.063) | -.408\*\*\* (.067) | -.410\*\*\* (.066) |
| Disruption Costs Index | .131\*\*(.053) | .144\*\*(.051) | .130\*\*(.053) | .142\*\*(.051) |
| Previous Violence |  |  | .205\*(.095) | .092(.094) |
| Number of Demands |  |  | .210(.149) | .288\*(.126) |
| Polity |  | -.092(.074) |  | -.086(.073) |
| Polity Squared |  | .005(.003) |  | .005(.003) |
| GDP per Capita (ln)  |  | -.130(.085) |  | -.122(.084) |
| Youth Bulge (15-24) |  | .082\*\*(.033) |  | .086\*\*(.033) |
| Constant | -1.84\*\*\* (.294) | -2.19\*(1.29) | -2.08\*\*\* (.308) | -2.62\*(1.29) |
|  |  |  |  |  |
| **Coercion** |  |  |  |  |
| Concession Costs Index | .752\*\*\* (.101) | .788\*\*\*(.095) | .782\*\*\*(.101) | .823\*\*\*(.102) |
| Disruption Costs Index | -.222\*\*\* (.063) | -.185\*\*(.061) | -.203\*\*\* (.063) | -.170\*\*(.061) |
| Previous Violence |  |  | .819\*\*\*(.167) | .729\*\*\*(.170) |
| Number of Demands |  |  | -.652\*\*(.263) | -.535\*(.242) |
| Polity |  | -.157(.138) |  | -.163(.133) |
| Polity Squared |  | .003(.007) |  | .003(.007) |
| GDP per Capita (ln) |  | -.180(.184) |  | -.128(.173) |
| Youth Bulge (15-24) |  | .202\*\*(.069) |  | .201\*\*(.066) |
| Constant | -3.65\*\*\* (.505) | -4.98\*(2.82) | -3.43\*\*\* (.569) | -5.20\*(2.70) |
|  |  |  |  |  |
| **Mixed Response** |  |  |  |  |
| Concession Costs Index | .765\*\*\* (.067) | .718\*\*\*(.063) | .754\*\*\*(.070) | .707\*\*\* (.066) |
| Disruption Costs Index | .079(.049) | .117\*\*(.049) | .094\*(.047) | .126\*\*(.048) |
| Previous Violence |  |  | .856\*\*\*(.107) | .703\*\*\* (.084) |
| Number of Demands |  |  | -.248\*(.115) | -.122(.140) |
| Polity |  | -.095(.074) |  | -.101(.070) |
| Polity Squared |  | .002(.003) |  | .002(.003) |
| GDP per Capita (ln) |  | -.295\*(.128) |  | -.257\*(.120) |
| Youth Bulge (15-24) |  | .059\*(.035) |  | .055\*(033) |
| Constant | -3.86\*\*\* (.338) | -1.86(1.66) | -3.99\*\*\* (.325) | -2.21(1.48) |
|  |  |  |  |  |
| N | 9965 | 9522 | 9965 | 9522 |
| Wald χ2 (Prob. > χ2) | 329.79 (0.0000) | 611.69 (0.0000) | 412.83 (0.0000) | 747.50 (0.0000) |
| Country Clusters | 160 | 152 | 160 | 152 |

Robust standard errors in Parentheses clustered by country. Two –tailed significance tests. \*\*\*p≤.001, \*\*p≤.01, \*p≤.05

**Table 4: Fixed Effects Multinomial Logit Regression Results, Cost Indices Only**

|  |  |
| --- | --- |
| Dependent Variable= State Response | Model 11GDP per Capita (ln) & Youth Bulge |
|  |  |
| **Base Category (Disregard)** |  |
|  |  |
| **Crowd Dispersal** |  |
| Concession Costs Index | .692\*\*\* (.035) |
| Disruption Costs Index | -.175\*\*\* (.020) |
|  |  |
| Constant | -.635 (1.71) |
|  |  |
| **Accommodation** |  |
| Concession Costs Index | -.131\*\* (.047) |
| Disruption Costs Index | .233\*\*\* (.030) |
|  |  |
| Constant | -1.60 (2.38) |
|  |  |
| **Coercion** |  |
| Concession Costs Index | .976\*\*\* (.048) |
| Disruption Costs Index | -.040 (.028) |
|  |  |
| Constant | 1.34 (2.10) |
|  |  |
| N | 9512 |

10 observations completely dropped.

Robust standard errors in Parentheses. Two –tailed significance tests.

\*\*\*p≤.001, \*\*p≤.01, \*p≤.05

**Figures**

**Figure 1: Protest Event Distribution by Geographic Region**



**Figure 2: Distribution of State Responses**



**Figure 3: Distribution of Protester Demands**



**Figure 4: Protest Violence By Previous Protest Violence @ time t-1**



**Figure 5: Protest Violence by Protest Duration**



**Figure 6: Protest Violence By Previous Violence @ Time t-1 & Protest Duration**



**Figure 7: Violence and the Range & Distribution of**

**Alternative Concession Cost Index Specifications**

****

**Figure 8: Predicted Probability of State Response Across Concession Costs Index**

**(95% CIs)**

****

**Figure 9: Predicted Probability of State Response Across Disruption Costs Index**

**(95% CIs)**

****

**APPENDIX TABLES**

**Table A1: Descriptive Statistics of “Raw” Protest Event Data**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Variable** | N | Mean | Std. Dev. | Min. | Max. |
| ***Unit of Observation* = Country-Year-Event (5536 Protest Events)** |
| Duration (number of days) | 10125 | 2.62 | 14.78 | 1 | 939 |
| Participants | 10133 | 16195.07 | 123264 | 50 | 7000000 |
| Violent Protest Events | 10654 | .270 | .444 | 0 | 1 |
| Protest Location (1=non-urban, 2=urban, 3=capital, 4=nationwide) | 10105 | 2.71 | .761 | 1 | 4 |
| **Protester Demands**[[12]](#footnote-12) | 11792 |  |  |  |  |
| *Fiduciary Issues* | 999 |  |  |  |  |
| *Social Restrictions* | 357 |  |  |  |  |
| *Labor or Wage* | 1528 |  |  |  |  |
| *Land Tenure or Farm Issues* | 333 |  |  |  |  |
| *Police Brutality* | 725 |  |  |  |  |
| *Political Process* | 6982 |  |  |  |  |
| *Resignation or Removal of Politician* | 868 |  |  |  |  |
|  |  |  |  |  |  |
| **State Responses**[[13]](#footnote-13) | 12780 |  |  |  |  |
| *Disregard* | 5312 |  |  |  |  |
| *Arrests* | 1466 |  |  |  |  |
| *Crowd Dispersal* | 3166 |  |  |  |  |
| *Accommodation* | 995 |  |  |  |  |
| *Beating* | 610 |  |  |  |  |
| *Shooting* | 674 |  |  |  |  |
| *Killing* | 557 |  |  |  |  |

**Recursive Relationship**

**Table A2: Cost Indices Correlation Matrix**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Concession Costs Index(t) | Disruption Costs Index(t) | Concession Costs Index(t-1) | Disruption Costs Index(t-1) | State Response(t-1) | Protest Violence(t-1) |
| Concession Costs Index(t) | 1.0000 |  |  |  |  |  |
| Disruption Costs Index(t) | 0.0166 | 1.0000 |  |  |  |  |
| Concession Costs Index(t-1) | 0.3183 | 0.0141 | 1.0000 |  |  |  |
| Disruption Costs Index(t-1) | 0.0341 | 0.2528 | 0.0185 | 1.0000 |  |  |
| State Response(t-1) | 0.0710 | -0.0187 | 0.2050 | 0.0026 | 1.0000 |  |
| Protest Violence(t-1) | 0.1034 | -0.0386 | 0.4930 | -0.0625 | 0.4340 | 1.0000 |

**Table A3: Determinants of Concession Costs Index(t) [Ordered Logit]**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Model A1 | Model A2 | Model A3 | Model A4 |
| Dependent Variable = Concession Costs Index(t) |
| State Response(t-1) | .115\*\*\* (.035) |  | .025 (.033) |  |
| Concession Cost Index(t-1) |  | .720\*\*\* (.039) |  | .758\*\*\* (.039) |
| Disruption Cost Index(t-1) |  | .031\* (.016) |  | .036\* (.019) |
| Disruption Cost Index(t) | .021 (.028) | .009 (.026) | .002 (.027) | -.012 (.024) |
| Protest Violence(t-1) |  |  | .325\*\*\* (.067) | -.377\*\*\* (.075) |
| Number of Demands |  |  | 1.22\*\*\* (.117) | 1.17\*\*\* (.109) |
| Region |  |  | -.007 (.030) | .010 (.023) |
| Polity |  |  | .140\*\* (.048) | .097\*\* (.038) |
| Polity Squared |  |  | -.007\*\*\* (.002) | -.005\*\* (.002) |
| Youth Bulge |  |  | -.011 (.025) | .002 (.020) |
| GDP per Capita (ln) |  |  | -.055 (.060) | -.063 (.049) |
|  |  |  |  |  |
| N | 9892 | 9780 | 9458 | 9358 |
| Wald χ2 (Prob. > χ2) | 11.38 (0.0034) | 354.67 (0.0000) | 187.84 (0.0000) | 548.50 (0.0000) |
| Country Clusters | 157 | 156 | 151 | 150 |

Robust standard errors in Parentheses clustered by country.

Two –tailed significance tests. \*\*\*p≤.001, \*\*p≤.01, \*p≤.05

**Table A4: Determinants of Disruption Costs Index(t) [Ordered Logit]**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Model A5 | Model A6 | Model A7 | Model A8 |
| Dependent Variable = Disruption Costs Index(t) |
| State Response(t-1) | -.035 (.031) |  | .036 (.029) |  |
| Concession Cost Index(t-1) |  | .006 (.025) |  | .038 (.032) |
| Disruption Cost Index(t-1) |  | .331\*\*\* (.026) |  | .292\*\*\* (.027) |
| Concession Cost Index(t) | .051 (.042) | .034 (.038) | .012 (.040) | -.012 (.036) |
| Protest Violence(t-1) |  |  | -.116\* (.059) | -.082 (.069) |
| Number of Demands |  |  | .345\*\* (.123) | .351\*\*\* (.106) |
| Region |  |  | -.179\*\*\* (.041) | -.142\*\*\* (.033) |
| Polity |  |  | .095 (.062) | .076 (.050) |
| Polity Squared |  |  | -.004 (.003) | .004 (.002) |
| Youth Bulge |  |  | -.021 (.033) | -.014 (.027) |
| GDP per Capita (ln) |  |  | -.005 (.094) | .001 (.075) |
|  |  |  |  |  |
| N | 9892 | 9780 | 9458 | 9358 |
| Wald χ2 (Prob. > χ2) | 3.43 (0.1798) | 164.90 (0.0000) | 79.38 (0.0000) | 231.12 (0.0000) |
| Country Clusters | 157 | 156 | 151 | 150 |

Robust standard errors in Parentheses clustered by country.

Two –tailed significance tests. \*\*\*p≤.001, \*\*p≤.01, \*p≤.05

**Table A5: Violence Begets Violence, All Protests [Logit]**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Model A9 | Model A10 | Model A11 | Model A12 | Model A13 |
| Dependent Variable = Protest Violence [All Protests] |
| Protest Violence(t-1) | .865\*\*\* (.067) | 1.05\*\*\* (.08) | .793\*\*\* (.063) | .933\*\*\* (.075) | .750\*\*\* (.067) |
| State Response(t-1) | .119\*\*\* (.031) |  | .069\*\* (.029) |  |  |
| Disregard(t-1) |  |  |  |  | -.442\* (.211) |
| Accommodate(t-1) |  |  |  |  | -.385\* (.213) |
| Crowd Control(t-1) |  |  |  |  | -.265 (.198) |
| Coercion(t-1) |  |  |  |  | -.169 (.190) |
| Concession Cost Index(t-1) |  | -.050 (.037) |  | -.058 (.036) |  |
| Disruption Cost Index(t-1) |  | -.022 (.025) |  | .003 (.026) |  |
| Duration | .003 (.003) | .003 (.003) | .004 (.004) | .003 (.004) | .004 (.004) |
| Demand Type | .071 (.061) | .108\* (.059) | -.011 (.061) | .019 (.060) | -.009 (.060) |
| Number of Demands | .083 (.081) | .090 (.082) | .144 (.094) | .161\* (.096) | .153 (.094) |
| Recurring Demand [Demand(t) = Demand(t-1)] | -.073 (.057) | -.058 (.058) | -.008 (.055) | .014 (.055) | -.014 (.055) |
| Region |  |  | .080\*\* (.031) | .082\*\* (.031) | .081\*\* (.031) |
| Polity |  |  | .024 (.052) | .020 (.051) | .026 (.052) |
| Polity Squared |  |  | -.001 (.002) | -.000 (.002) | -.001 (.002) |
| Youth Bulge |  |  | .013 (.024) | .015 (.024) | .012 (.023) |
| GDP per Capita |  |  | -.172\*\* (.070) | -.174\*\* (.071) | -.170\*\* (.070) |
|  |  |  |  |  |  |
| Constant | -1.64\*\*\* (.161) | -1.32\*\*\* (.200) | -.955 (1.05) | -.802 (1.09) | -.497 (1.04) |
|  |  |  |  |  |  |
| N | 9925 | 9813 | 9487 | 9387 | 9515 |
| Wald χ2 (Prob. > χ2) | 190.53 (0.0000) | 220.49 (0.0000) | 252.02 (0.0000) | 279.33 (0.0000) | 251.49 (0.0000) |
| Country Clusters | 157 | 156 | 151 | 150 | 151 |

Robust standard errors in Parentheses clustered by country.

Two –tailed significance tests. \*\*\*p≤.001, \*\*p≤.01, \*p≤.05

**Table A6: Violence Begets Violence, One-Day Protests [Logit]**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Model A14 | Model A15 | Model A16 | Model A17 | Model A18 |
| Dependent Variable = Protest Violence [One-Day Protests] |
| Protest Violence(t-1) | .908\*\*\* (.072) | 1.04\*\*\* (.088) | .823\*\*\* (.069) | .915\*\*\* (.081) | .757\*\*\* (.074) |
| State Response(t-1) | .095\*\* (.036) |  | .049 (.033) |  |  |
| Disregard(t-1) |  |  |  |  | -.410\* (.228) |
| Accommodate(t-1) |  |  |  |  | -.435\* (.246) |
| Crowd Control(t-1) |  |  |  |  | -.201 (.214) |
| Coercion(t-1) |  |  |  |  | -.176 (.202) |
| Concession Cost Index(t-1) |  | -.025 (.040) |  | -.032 (.038) |  |
| Disruption Cost Index(t-1) |  | -.030 (.030) |  | -.004 (.031) |  |
| Demand Type | .022 (.063) | .046 (.064) | -.058 (.067) | -.042 (.069) | -.059 (.067) |
| Number of Demands | .024 (.103) | .028 (.103) | .089 (.118) | .102 (.118) | .090 (.116) |
| Recurring Demand [Demand(t) = Demand(t-1)] | -.024 (.061) | -.022 (.061) | .042 (.057) | .052 (.057) | .034 (.058) |  |
| Region |  |  | .082\*\* (.030) | .080\*\* (.030) | .081\*\* (.029) |
| Polity |  |  | .039 (.050) | .036 (.051) | .043 (.051) |
| Polity Squared |  |  | -.001 (.002) | -.001 (.002) | -.001 (.002) |
| Youth Bulge |  |  | .000 (.024) | .003 (.024) | .000 (.024) |
| GDP per Capita |  |  | -.195\*\* (.073) | -.194\*\* (.075) | -.194\*\* (.073) |
|  |  |  |  |  |  |
| Constant | -1.63\*\*\* (.174) | -1.34\*\*\* (.210) | -.703 (1.09) | -.581 (1.15) | -.289 (1.10) |
|  |  |  |  |  |  |
| N | 8346 | 8258 | 7965 | 7885 | 7984 |
| Wald χ2 (Prob. > χ2) | 172.86 (0.0000) | 195.62 (0.0000) | 243.71 (0.0000) | 266.34 (0.0000) | 252.50 (0.0000) |
| Country Clusters | 156 | 155 | 150 | 149 | 150 |

Robust standard errors in Parentheses clustered by country.

Two –tailed significance tests. \*\*\*p≤.001, \*\*p≤.01, \*p≤.05

**Table A7: Violence Begets Violence, Multi-Day Protests [Logit]**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Model A19 | Model A20 | Model A21 | Model A22 | Model A23 |
| Dependent Variable = Protest Violence [Multi-Day Protests] |
| Protest Violence(t-1) | .711\*\*\* (.128) | .972\*\*\* (.140) | .673\*\*\* (.124) | .887\*\*\* (.147) | .670\*\*\* (.133) |
| State Response(t-1) | .170\*\* (.060) |  | .114\* (.060) |  |  |
| Disregard(t-1) |  |  |  |  | -.145 (.666) |
| Accommodate(t-1) |  |  |  |  | .002 (.644) |
| Crowd Control(t-1) |  |  |  |  | -.054 (.617) |
| Coercion(t-1) |  |  |  |  | .232 (.668) |
| Concession Cost Index(t-1) |  | -.088 (.076) |  | -.089 (.077) |  |
| Disruption Cost Index(t-1) |  | -.094\*\* (.040) |  | -.063 (.045) |  |
| Duration | -.003 (.003) | -.003 (.002) | -.004 (.003) | -.004\* (.003) | -.004\* (.002) |
| Demand Type | .360\*\* (.130) | .447\*\*\* (.126) | .298\*\* (.126) | .380\*\*\* (.123) | .301\*\* (.128) |
| Number of Demands | .238\* (.134) | .236\* (.135) | .183 (.141) | .195 (.141) | .211 (.138) |
| Recurring Demand [Demand(t) = Demand(t-1)] | -.173 (.112) | -.124 (.117) | -.112 (.114) | -.069 (.118) | -.112 (.116) |
| Region |  |  | .188\*\*\* (.059) | .191\*\*\* (.059) | .191\*\*\* (.059) |
| Polity |  |  | -.045 (.090) | -.061 (.086) | -.048 (.092) |
| Polity Squared |  |  | .002 (.004) | .003 (.004) | .002 (.004) |
| Youth Bulge |  |  | .043 (.043) | .040 (.043) | .042 (.043) |
| GDP per Capita |  |  | -.032 (.090) | -.045 (.091) | -.029 (.090) |
|  |  |  |  |  |  |
| Constant | -1.56\*\*\* (.283) | -.833\*\* (.354) | -2.44\* (1.39) | -1.73 (1.40) | -2.21 (1.43) |
|  |  |  |  |  |  |
| N | 1579 | 1555 | 1522 | 1502 | 1531 |
| Wald χ2 (Prob. > χ2) | 65.10 (0.0000) | 85.52 (0.0000) | 99.68 (0.0000) | 131.95 (0.0000) | 108.10 (0.0000) |
| Country Clusters | 139 | 139 | 130 | 130 | 130 |

Robust standard errors in Parentheses clustered by country.

Two –tailed significance tests. \*\*\*p≤.001, \*\*p≤.01, \*p≤.05

**Table A8: Violence Begets Violence, Sequential Protests [Logit]**

**[Sequential = <22 Days Between Protest Events]**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Model A24 | Model A25 | Model A26 | Model A27 | Model A28 |
| Dependent Variable = Protest Violence [Sequential Protests] |
| Protest Violence(t-1) | 1.03\*\*\* (.087) | 1.16\*\*\* (.117) | .950\*\*\* (.084) | 1.05\*\*\* (.018) | .902\*\*\* (.096) |
| State Response(t-1) | .133\*\* (.051) |  | .087\* (.048) |  |  |
| Disregard(t-1) |  |  |  |  | -.570\* (.305) |
| Accommodate(t-1) |  |  |  |  | -.514\* (.293) |
| Crowd Control(t-1) |  |  |  |  | -.371 (.290) |
| Coercion(t-1) |  |  |  |  | -.218 (.272) |
| Concession Cost Index(t-1) |  | .013 (.052) |  | -.010 (.054) |  |
| Disruption Cost Index(t-1) |  | -.001 (.035) |  | .016 (.037) |  |
| Duration | .002 (.002) | .002 (.002) | .001 (.002) | .001 (.002) | .001 (.002) |
| Demand Type | .095 (.072) | .103 (.070) | -.024 (.079) | -.020 (.079) | -.023 (.079) |
| Number of Demands | .095 (.093) | .107 (.094) | .149 (.110) | .172 (.112) | .162 (.110) |
| Recurring Demand [Demand(t) = Demand(t-1)] | .036 (.086) | .022 (.093) | .082 (.080) | .082 (.086) | .067 (.082) |
| Region |  |  | .078\* (.036) | .086\*\* (.035) | .080\* (.036) |
| Polity |  |  | .031 (.062) | .026 (.062) | .033 (.063) |
| Polity Squared |  |  | -.001 (.003) | -.001 (.003) | -.001 (.003) |
| Youth Bulge |  |  | .010 (.028) | .012 (.029) | .009 (.028) |
| GDP per Capita |  |  | -.161\* (.094) | -.164\* (.094) | -.161\* (.094) |
|  |  |  |  |  |  |
| Constant | -1.89\*\*\* (.225) | -1.73\*\*\* (.268) | -1.15 (1.36) | -1.11 (1.41) | -.531 (1.35) |
|  |  |  |  |  |  |
| N | 4795 | 4769 | 4602 | 4579 | 4613 |
| Wald χ2 (Prob. > χ2) | 152.57 (0.0000) | 163.52 (0.0000) | 201.71 (0.0000) | 206.63 (0.0000) | 202.85 (0.0000) |
| Country Clusters | 138 | 138 | 131 | 131 | 131 |

Robust standard errors in Parentheses clustered by country.

Two –tailed significance tests. \*\*\*p≤.001, \*\*p≤.01, \*p≤.05

**Table A9: Violence Begets Violence, Isolated Protests [Logit]**

**[Isolated = >21 Days Between Protest Events]**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Model A29 | Model A30 | Model A31 | Model A32 | Model A33 |
| Dependent Variable = Protest Violence [Isolated Protests] |
| Protest Violence(t-1) | .719\*\*\* (.090) | .936\*\*\* (.101) | .647\*\*\* (.090) | .813\*\*\* (.100) | .608\*\*\* (.093) |
| State Response(t-1) | .107\*\*\* (.032) |  | .051\* (.030) |  |  |
| Disregard(t-1) |  |  |  |  | -.366 (.284) |
| Accommodate(t-1) |  |  |  |  | -.314 (.279) |
| Crowd Control(t-1) |  |  |  |  | -.211 (.277) |
| Coercion(t-1) |  |  |  |  | -.165 (.278) |
| Concession Cost Index(t-1) |  | -.101\*\* (.042) |  | -.097\*\* (.040) |  |
| Disruption Cost Index(t-1) |  | -.047\* (.026) |  | -.011 (.026) |  |
| Duration | .007\* (.003) | .007\*\* (.003) | .009\*\* (.004) | .009\*\* (.004) | .010\*\* (.004) |
| Demand Type | .057 (.078) | .100 (.078) | .008 (.076) | .045 (.077) | .010 (.075) |
| Number of Demands | .050 (.104) | .048 (.106) | .114 (.109) | .121 (.112) | .120 (.108) |
| Recurring Demand [Demand(t) = Demand(t-1)] | -.128\* (.073) | -.087 (.073) | -.069 (.071) | -.027 (.073) | -.069 (.071) |
| Region |  |  |  | .082\*\* (.034) | .084\*\* (.032) |
| Polity |  |  |  | .014 (.056) | .022 (.057) |
| Polity Squared |  |  |  | -.000 (.002) | -.000 (.002) |
| Youth Bulge |  |  |  | .020 (.023) | .018 (.023) |
| GDP per Capita |  |  |  | -.182\*\* (.060) | -.177\*\* (.059) |
|  |  |  |  |  |  |
| Constant | -1.45\*\*\* (.179) | -.938\*\*\* (.218) | -.893 (.904) | -.612 (.931) | -.531 (.929) |
|  |  |  |  |  |  |
| N | 5123 | 5037 | 4878 | 4801 | 4895 |
| Wald χ2 (Prob. > χ2) | 93.02 (0.0000) | 116.36 (0.0000) | 149.26 (0.0000) | 177.13 (0.0000) | 152.11 (0.0000) |
| Country Clusters | 156 | 155 | 150 | 149 | 150 |

Robust standard errors in Parentheses clustered by country.

Two –tailed significance tests. \*\*\*p≤.001, \*\*p≤.01, \*p≤.05

**Table A10: Violence Begets Violence, Recurrent Demand Protests [Logit]**

**[Recurrent Demand = Protester Demand(t)= Protest Demand(t-1)]**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Model A34 | Model A35 | Model A36 | Model A37 | Model A38 |
| Dependent Variable = Protest Violence [Recurrent Demand Protests] |
| Protest Violence(t-1) | 1.00\*\*\* (.084) | 1.29\*\*\* (.117) | .933\*\*\* (.083) | 1.14\*\*\* (.103) | .886\*\*\* (.088) |
| State Response(t-1) | .154\*\*\* (.036) |  | .107\*\*\* (.034) |  |  |
| Disregard(t-1) |  |  |  |  | -.502\* (.282) |
| Accommodate(t-1) |  |  |  |  | -.399 (.288) |
| Crowd Control(t-1) |  |  |  |  | -.273 (.279) |
| Coercion(t-1) |  |  |  |  | -.110 (.282) |
| Concession Cost Index(t-1) |  | -.136\* (.063) |  | -.093 (.063) |  |
| Disruption Cost Index(t-1) |  | -.015 (.031) |  | .009(.031) |  |
| Duration | .003(.003) | .003(.003) | .003(.003) | .002 (.003) | .003 (.003) |
| Demand Type | .086(.085) | .243\*\* (.099) | -.016 (.088) | .087(.102) | -.020 (.087) |
| Number of Demands | .107 | .087(.089) | .160(.102) | .154 (.107) | .169\* (.101) |
| Region |  |  | .084\*\* (.034) | .087\*\* (.034) | .083\*\* (.034) |
| Polity |  |  | -.018 (.054) | -.024 (.055) | -.016 (.055) |
| Polity Squared |  |  | .001(.002) | .001 (.002) | .001 (.003) |
| Youth Bulge |  |  | .008(.024) | .011 (.025) | .008 (.024) |
| GDP per Capita |  |  | -.176\*\* (.070) | -.176\*\* (.072) | -.176\*\* (.070) |
|  |  |  |  |  |  |
| Constant | -1.89\*\*\* (.221) | -1.50\*\*\* (.229) | -.822 (1.05) | -.646 (1.10) | -.251 (1.08) |
|  |  |  |  |  |  |
| N | 5957 | 5895 | 5715 | 5661 | 5728 |
| Wald χ2 (Prob. > χ2) | 170.84 (0.0000) | 184.64 (0.0000) | 236.51 (0.0000) | 249.94 (0.0000) | 247.79 (0.0000) |
| Country Clusters | 149 | 149 | 141 | 141 | 141 |

Robust standard errors in Parentheses clustered by country.

Two –tailed significance tests. \*\*\*p≤.001, \*\*p≤.01, \*p≤.05

**Table A11: Violence Begets Violence, Disassociated Protests [Logit]**

**[Disassociated = Protester Demand(t) ≠ Protest Demand(t-1)]**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Model A39 | Model A40 | Model A41 | Model A42 | Model A43 |
| Dependent Variable = Protest Violence [Recurrent Demand Protests] |
| Protest Violence(t-1) | .671\*\*\* (.095) | .779\*\*\* (.103) | .588\*\*\* (.093) | .673\*\*\* (.105) | .555\*\*\* (.097) |
| State Response(t-1) | .075\* (.042) |  | .017 (.043) |  |  |
| Disregard(t-1) |  |  |  |  | -.369 (.358) |
| Accommodate(t-1) |  |  |  |  | -.387 (.356) |
| Crowd Control(t-1) |  |  |  |  | -.283 (.338) |
| Coercion(t-1) |  |  |  |  | -.261 (.334) |
| Concession Cost Index(t-1) |  | -.016 (.045) |  | -.049 (.043) |  |
| Disruption Cost Index(t-1) |  | -.035 (.028) |  | -.005 (.029) |  |
| Duration | .005 (.004) | .005 (.004) | .006 (.004) | .006 (.004) | .006 (.004) |
| Demand Type | .073 (.071) | .089 (.072) | .003 (.069) | .005 (.070) | .006 (.069) |
| Number of Demands | -.035 (.150) | -.009 (.152) | .041 (.150) | .089 (.151) | .059 (.147) |
| Region |  |  | .069\* (.033) | .071\* (.034) | .071\* (.034) |
| Polity |  |  | .091 (.067) | .089 (.065) | .093 (.067) |
| Polity Squared |  |  | -.003 (.003) | -.003 (.003) | -.004 (.003) |
| Youth Bulge |  |  | .024 (.031) | .025 (.032) | .024 (.031) |
| GDP per Capita |  |  | -.164\* (.079) | -.167\* (.080) | -.161\* (.080) |
|  |  |  |  |  |  |
| Constant | -1.36\*\*\* (.193) | -1.12\*\*\* (.265) | -1.17 (1.29) | -1.07 (1.33) | -.867 (1.27) |
|  |  |  |  |  |  |
| N | 3968 | 3918 | 3772 | 3726 | 3787 |
| Wald χ2 (Prob. > χ2) | 59.89 (0.0000) | 67.68 (0.0000) | 92.50 (0.0000) | 103.23 (0.0000) | 96.04 (0.0000) |
| Country Clusters | 155 | 154 | 149 | 148 | 149 |

Robust standard errors in Parentheses clustered by country.

Two –tailed significance tests. \*\*\*p≤.001, \*\*p≤.01, \*p≤.05

**Table A12: Recurrent Demand [Logit]**

**[Recurrent Demand = Protester Demand(t)= Protest Demand(t-1)]**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Model A44 | Model A45 | Model A46 | Model A47 |
| Dependent Variable = Recurrent Demand |
| Protest Violence(t-1) | -.040 (.061) | -.102 (.066) | -.073 (.063) | -.103 (.068) |
| State Response(t-1) | -.026 (.029) |  | -.022 (.028) |  |
| Disregard(t-1) |  | .133 (.205) |  | .154 (.207) |
| Accommodate(t-1) |  | -.038 (.220) |  | .079 (.219) |
| Crowd Control(t-1) |  | .233 (.211) |  | .197 (.214) |
| Coercion(t-1) |  | .125 (.211) |  | .111 (.208) |
| Demand Type(t-1) | .811\*\*\* (.085) | .800\*\*\* (.085) | 5.23\*\*\* (.361) | 5.25\*\*\* (.360) |
| Demand Type Squared(t-1) |  |  | -1.22\*\*\* (.090) | -1.22\*\*\* (.090) |
| Number of Demands | .939\*\*\* (.077) | .939\*\*\* (.077) | 1.09\*\*\* (.086) | 1.09\*\*\* (.086) |
| Region | -.081\*\* (.030) | -.081\*\* (.030) | -.071\*\* (.029) | -.071\*\* (.029) |
| Polity | .072 (.047) | .074 (.047) | .081\* (.044) | .082\* (.044) |
| Polity Squared | -.004\* (.002) | -.004\* (.002) | -.004\* (.002) | -.004\* (.002) |
| Youth Bulge | -.015 (.026) | -.016 (.026) | -.020 (.024) | -.020 (.024) |
| GDP per Capita | .105\* (.052) | .103\* (.052) | .079 (.049) | .079 (.049) |
|  |  |  |  |  |
| Constant | -2.36\*\* (.929) | -2.51\*\* (.972) | -6.04\*\*\* (.933) | -6.21\*\*\* (.972) |
|  |  |  |  |  |
| N | 9523 | 9523 | 9523 | 9523 |
| Wald χ2 (Prob. > χ2) | 285.55 (0.0000) | 302.40 (0.0000) | 410.07 (0.0000) | 417.33 (0.0000) |

Robust standard errors in Parentheses clustered by country.

Two –tailed significance tests. \*\*\*p≤.001, \*\*p≤.01, \*p≤.05

**Indices Functional Form**

**Table A13: Costs Indices Comparisons**

Correlation Matrix

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Add. Con. Index | Multi. Con.Index | Add. Dis. Index | Multi. Dis.Index |
| Additive Concession Index | 1.0000 |  |  |  |
| Multiplicative Concession Index | 0.6295 | 1.0000 |  |  |
| Additive Disruption Index | 0.0171 | -0.0046 | 1.0000 |  |
| Multiplicative Disruption Index | 0.0134 | 0.0562 | 0.5367 | 1.0000 |

Distribution of Competing Specifications

|  |  |  |  |
| --- | --- | --- | --- |
| Additive Concession Index | Multiplicative Concession Index | Additive Disruption Index | Multiplicative Disruption Index |
| Value | Freq. | Value | Freq. | Value | Freq. | Value[[14]](#footnote-14) | Freq. |
| 1 | 1101 | 0 | 8364 | 1 | 173 | 0 | 8769 |
| 2 | 2340 | 1 | 156 | 2 | 846 | 1 | 32 |
| 3 | 4650 | 2 | 1333 | 3 | 2008 | 2 | 123 |
| 4 | 1762 | 3 | 165 | 4 | 2681 | 3 | 213 |
| 5 | 165 |  |  | 5 | 2295 | 4 | 179 |
|  |  |  |  | 6 | 1353 | 6 | 279 |
|  |  |  |  | 7 | 532 | 8 | 129 |
|  |  |  |  | 8 | 154 | 9 | 97 |
|  |  |  |  | 9 | 50 | 12 | 138 |
|  |  |  |  |  |  | 16 | 44 |
|  |  |  |  |  |  | 18 | 39 |
|  |  |  |  |  |  | 24 | 50 |
|  |  |  |  |  |  |  |  |
| N=10,018 Protest Events | N=10,092 Protest Events |

**Table A14: Concession Costs Indices Comparisons**

**Correlation Matrix**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Add. | Multi. | W. 1 Add. | W. 2 Add. | W. 3 Add. | W. 4 Add. | W. Multi. |
| Add. Con. Index | 1.0000 |  |  |  |  |  |  |
| Multi. Con. Index | 0.6297 | 1.0000 |  |  |  |  |  |
| Weighted 1 Add. Con. Index  | 0.9619 | 0.5023 | 1.0000 |  |  |  |  |
| Weighted 2 Add. Con. Index | 0.9463 | 0.7368 | 0.8628 | 1.0000 |  |  |  |
| Weighted 3 Add. Con. Index | 0.9597 | 0.5807 | 0.8898 | 0.8605 | 1.0000 |  |  |
| Weighted 4 Add. Con. Index | 0.8051 | 0.3054 | 0.9353 | 0.6803 | 0.6818 | 1.0000 |  |
| Weighted Multi. Con. Index | 0.6297 | 1.0000 | 0.5023 | 0.7368 | 0.5807 | 0.3054 | 1.0000 |

Add. Con. Index = Demand + Protester Violence + Demand History

Multiplicative Con. Index = Demand \* Protester Violence \* Demand History

Weighted 1 Add. Con. Index = (Demand\*.5) + (Protester Violence\*.25) + (Demand History \*.25)

Weighted 2 Add. Con. Index = (Demand\*.25) + (Protester Violence\*.5) + (Demand History \*.25)

Weighted 3 Add. Con. Index = (Demand\*.25) + (Protester Violence\*.25) + (Demand History \*.5)

Weighted 4 Add. Con. Index = (Demand\*.8) + (Protester Violence\*.15) + (Demand History \*.05)

Weighted Multi. Con. Index = (Demand\*.8) \* (Protester Violence\*.15) \* (Demand History \*.05)

**Table A15: Distribution of Concession Costs Indices**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Additive Concession Index | Weighted 1 Additive Concession Index | Weighted 2 Additive Concession Index | Weighted 3 Additive Concession Index | Weighted 4 Additive Concession Index |
| Value | Freq. | Value | Freq. | Value | Freq. | Value | Freq. | Value | Freq. |
| 1 | 1101 | .5 | 1101 | .25 | 1101 | .25 | 1101 | .8 | 1101 |
| 2 | 2340 | .75 | 830 | .5 | 1944 | .5 | 1910 | .85 | 430 |
| 3 | 4650 | 1 | 1670 | .75 | 4211 | .75 | 1371 | .95 | 396 |
| 4 | 1762 | 1.25 | 4232 | 1 | 1167 | 1 | 3806 | 1 | 156 |
| 5 | 165 | 1.5 | 1595 | 1.25 | 1430 | 1.25 | 1665 | 1.6 | 1514 |
|  |  | 1.75 | 429 | 1.5 | 165 | 1.5 | 165 | 1.65 | 3553 |
|  |  | 2 | 165 |  |  |  |  | 1.75 | 679 |
|  |  |  |  |  |  |  |  | 1.8 | 1333 |
|  |  |  |  |  |  |  |  | 2.4 | 262 |
|  |  |  |  |  |  |  |  | 2.45 | 332 |
|  |  |  |  |  |  |  |  | 2.55 | 97 |
|  |  |  |  |  |  |  |  | 2.6 | 165 |
| N = 10,018 |

|  |  |
| --- | --- |
| Multiplicative Concession Index | Weighted Multiplicative Concession Index |
| Value | Freq. | Value | Freq. |
| 0 | 8364 | 0 | 8364 |
| 1 | 156 | .006 | 156 |
| 2 | 1333 | .012 | 1333 |
| 3 | 165 | .018 | 165 |
|  |  |  |  |
| N = 10,018 |

**Table A16: Disruption Costs Indices Comparisons**

**Correlation Matrix**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Add. | Multi. | W. 1 Add. | W. 2 Add. | W. 3 Add. | W. 4 Add. | W. Multi. |
| Add. Dis. Index | 1.0000 |  |  |  |  |  |  |
| Multi. Dis. Index | 0.5374 | 1.0000 |  |  |  |  |  |
| Weighted 1 Add. Dis. Index | 0.9646 | 0.4526 | 1.0000 |  |  |  |  |
| Weighted 2 Add. Dis. Index | 0.9619 | 0.4586 | 0.8769 | 1.0000 |  |  |  |
| Weighted 3 Add. Dis. Index | 0.9656 | 0.6755 | 0.8991 | 0.9081 | 1.0000 |  |  |
| Weighted 4 Add. Dis. Index | 0.8555 | 0.3041 | 0.9611 | 0.7329 | 0.7516 | 1.0000 |  |
| Weighted Multi. Dis. Index | 0.5374 | 1.0000 | 0.4526 | 0.4586 | 0.6755 | 0.3041 | 1.0000 |

Add. Dis. Index = Protest Location + Duration + Recent Protest Activity

Multi. Dis. Index = Protest Location \* Duration \* Recent Protest Activity

Weighted 1 Add. Dis. Index = (Protest Location \* .5) + (Duration \* .25) + (Recent Protest Activity \* .25)

Weighted 2 Add. Dis. Index = (Protest Location \* .25) + (Duration \* .5) + (Recent Protest Activity \* .25)

Weighted 3 Add. Dis. Index = (Protest Location \* .25) + (Duration \* .25) + (Recent Protest Activity \* .5)

Weighted 4 Add. Dis. Index = (Protest Location \* .8) + (Duration \* .15) + (Recent Protest Activity \* .05)

Weighted Multi. Dis. Index = (Protest Location \* .8) \* (Duration \* .15) \* (Recent Protest Activity \* .05)

**Table A17: Distribution of Disruption Costs Indices**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Additive Disruption Index | Weighted 1 Additive Disruption Index | Weighted 2 Additive Disruption Index | Weighted 3 Additive Disruption Index | Weighted 4 Additive Disruption Index |
| Val. | Freq. | Val. | Freq. | Val. | Freq. | Val. | Freq. | Val. | Freq. | Val. | Freq. |
| 1 | 173 | .25 | 173 | .5 | 173 | .25 | 173 | .15 | 173 | 1.75 | 129 |
| 2 | 846 | .5 | 533 | .75 | 334 | .5 | 825 | .2 | 21 | 1.8 | 18 |
| 3 | 2008 | .75 | 1336 | 1 | 686 | .75 | 1909 | .25 | 13 | 1.85 | 10 |
| 4 | 2681 | 1 | 1087 | 1.25 | 949 | 1 | 2563 | .3 | 512 | 1.9 | 620 |
| 5 | 2295 | 1.25 | 2001 | 1.5 | 1683 | 1.25 | 2081 | .35 | 75 | 1.95 | 95 |
| 6 | 1353 | 1.5 | 989 | 1.75 | 2115 | 1.5 | 1362 | .4 | 15 | 2 | 40 |
| 7 | 532 | 1.75 | 1783 | 2 | 1974 | 1.75 | 601 | .45 | 935 | 2.05 | 1550 |
| 8 | 154 | 2 | 706 | 2.25 | 1156 | 2 | 289 | .5 | 87 | 2.1 | 185 |
| 9 | 50 | 2.25 | 890 | 2.5 | 450 | 2.25 | 156 | .55 | 22 | 2.15 | 53 |
|  |  | 2.5 | 434 | 2.75 | 407 | 2.5 | 83 | .6 | 129 | 2.2 | 235 |
|  |  | 2.75 | 110 | 3 | 115 | 2.75 | 50 | .65 | 57 | 2.25 | 71 |
|  |  | 3 | 50 | 3.25 | 50 |  |  | .7 | 18 | 2.3 | 44 |
|  |  |  |  |  |  |  |  | .95 | 313 | 2.55 | 19 |
|  |  |  |  |  |  |  |  | 1 | 32 | 2.6 | 11 |
|  |  |  |  |  |  |  |  | 1.05 | 13 | 2.65 | 1 |
|  |  |  |  |  |  |  |  | 1.1 | 824 | 2.7 | 217 |
|  |  |  |  |  |  |  |  | 1.15 | 92 | 2.75 | 31 |
|  |  |  |  |  |  |  |  | 1.2 | 27 | 2.8 | 14 |
|  |  |  |  |  |  |  |  | 1.25 | 1688 | 2.85 | 734 |
|  |  |  |  |  |  |  |  | 1.3 | 202 | 2.9 | 97 |
|  |  |  |  |  |  |  |  | 1.35 | 62 | 2.95 | 39 |
|  |  |  |  |  |  |  |  | 1.4 | 104 | 3 | 279 |
|  |  |  |  |  |  |  |  | 1.45 | 47 | 3.05 | 71 |
|  |  |  |  |  |  |  |  | 1.5 | 18 | 3.1 | 50 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| N = 10,092 |

|  |  |
| --- | --- |
| Multiplicative Concession Index | Weighted Multiplicative Concession Index |
| Value | Freq. | Value | Freq. |
| 0 | 8769 | 0 | 8769 |
| 1 | 32 | .006 | 32 |
| 2 | 123 | .012 | 123 |
| 3 | 213 | .018 | 213 |
| 4 | 179 | .024 | 179 |
| 6 | 279 | .036 | 279 |
| 8 | 129 | .048 | 129 |
| 9 | 97 | .054 | 97 |
| 12 | 138 | .072 | 138 |
| 16 | 44 | .096 | 44 |
| 18 | 39 | .108 | 39 |
| 24 | 50 | .144 | 50 |
| N = 10,092 |

**Table A18: Distribution of Competing Concession Cost Index Specifications**

|  |  |
| --- | --- |
| Additive Concession Cost Index With Violence Component | Additive Concession Cost Index Without Violence Component |
| All Protests | Violent Protests | Non-Violent Protests |  |
| Value | Freq. | Value | Freq. | Value | Freq. | Value | Frequency |
| 1 | 1101 | 1 | - | 1 | 1101 | 1 | 1501 |
| 2 | 2340 | 2 | 396 | 2 | 1944 | 2 | 2782 |
| 3 | 4650 | 3 | 835 | 3 | 3815 | 3 | 5251 |
| 4 | 1762 | 4 | 1430 | 4 | 332 | 4 | 497 |
| 5 | 165 | 5 | 165 | 5 | - | 5 | - |
| N= 10,018 Protest Events | N=2,826 Protest Events | N=7,192 Protest Events | N=10,031 Protest Events |

**Descriptive Statistics**

**Table A19: Descriptive Statistics for State Response Model**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ***Variable*** | ***N*** | ***Mean*** | ***Std. Dev.*** | ***Min.*** | ***Max.*** |
| ***Outcome Variable*** |  |  |  |  |  |
| State Response | 10104 | 1.87 | 1.07 | 1 | 4 |
| Disregard | n=5096 |  |  |  |  |
| Crowd Dispersal | n=2665 |  |  |  |  |
| Accommodation | n=920 |  |  |  |  |
| Coercion | n=1433 |  |  |  |  |
| ***Predictor Variables*** |  |  |  |  |  |
| Concession Costs Index | 10018 | 2.76 | .925 | 1 | 5 |
| Disruption Costs Index | 10092 | 4.32 | 1.48 | 1 | 9 |
|  |  |  |  |  |  |
| ***Control Variables*** |  |  |  |  |  |
|  |  |  |  |  |  |
| Polity | 11429 | 13.84 | 6.06 | 0 | 20 |
| Polity Squared | 11429 | 228.31 | 140.12 | 0 | 400 |
| Youth Bulge | 11420 | 18.00 | 3.22 | 9.42 | 26.27 |
| GDP per Capita (ln) | 11095 | 7.87 | 1.55 | 3.91 | 11.36 |
| Corruption Demand | 11560 | .086 | .281 | 0 | 1 |
| Previous Violence | 11560 | .388 | .487 | 0 | 1 |
| Violent Protest | 10654 | .270 | .444 | 0 | 1 |
|  |  |  |  |  |  |

**Table A20: Protest Sample Selection, Logit Regression**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Model A48 | Model A49 | Model A50 | Model A51 |
| Dependent Variable = Protest (Yes/No) |
| Physical Integrity | -.374\*\*\* (.059) | .028 (.169) | -.040 (.117) | -.067 (.125) |
| Physical Integrity Squared |  | -.049\*\* (.020) | -.028\* (.014) | -.025\* (.015) |
| Polity | .125\*\*\* (.022) | .226\* (.117) | .162\*\* (.070) | .176\*\* (.075) |
| Polity Squared |  | -.005 (.006) | -.004 (.003) | -.005 (.003) |
| GDP per Capita (ln) | -.053 (.105) | .008 (.109) | .056 (.075) | .085 (.080) |
| Youth Bulge | .033 (.055) | .017 (.058) | .021 (.037) | .021 (.040) |
| Region | -.209\*\* (.077) | -.226\*\* (.082) | -.161\*\*\* (.053) | -.156\*\* (.055) |
| Protest(t-1) |  |  | 3.06\*\*\* (.164) | 3.04\*\*\* (.166) |
| Crowd Dispersal(t-1) |  |  |  | -.199 (.125) |
| Accommodation(t-1) |  |  |  | -.048 (.198) |
| Coercion(t-1) |  |  |  | -.273\* (.149) |
|  |  |  |  |  |
| Constant | 2.93 (1.81) | 1.93 (1.78) | -.632 (1.22) | -.665 (1.30) |
|  |  |  |  |  |
| N | 8809 | 8809 | 8680 | 8474 |
| Wald χ2 (Prob. > χ2) | 78.94 (0.0000) | 83.52 (0.0000) | 563.05 (0.0000) | 512.88 (0.0000) |
| Country Clusters | 153 | 153 | 153 | 151 |

Robust standard errors in Parentheses clustered by country.

Two –tailed significance tests. \*\*\*p≤.001, \*\*p≤.01, \*p≤.05

**Table A21: Protest Sample Selection, Zero Inflated Negative Binomial Regression**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Model A52 | Model A53 | Model A54 | Model A55 |
| Dependent Variable = Number of Protests |
|  | **Count Stage** |  |
| Physical Integrity | -.151\*\*\* (.028) | -.147\* (.083) | .000 (.031) | .005 (.031) |
| Physical Integrity Squared |  | -001 (.010) | -.008\* (.004) | -.009\* (.004) |
| Polity | .035\*\* (.014) | .098\* (.053) | .016 (.028) | .020 (.029) |
| Polity Squared |  | -.003 (.002) | -.000 (.001) | -.001 (.001) |
| GDP per Capita (ln) | .180\*\* (.069) | .204\*\* (.075) | .021 (.029) | .024 (.030) |
| Youth Bulge | .003 (.029) | -.003 (.028) | .003 (.013) | .004 (.013) |
| Region | -.035 (.033) | -.033 (.032) | -.055\*\*\* (.012) | -.054\*\*\* (.012) |
| Number if Protests(t-1) |  |  | .141\*\*\* (.010) | .136\*\*\* (.012) |
| Crowd Dispersal(t-1) |  |  |  | .033\*\* (.012) |
| Accommodation(t-1) |  |  |  | .013 (.030) |
| Coercion(t-1) |  |  |  | .004 (.012) |
|  |  |  |  |  |
| Constant | .044 (1.06) | -.202 (1.11) | .596 (.446) | .496 (.444) |
|  |  |  |  |  |
|  | **Inflation Stage** |  |
| Physical Integrity | .413\* (.184) | -.574 (.441) | -.213 (.167) | -.217 (.167) |
| Physical Integrity Squared |  | .101\* (.047) | .032 (.021) | .031 (.021) |
| Polity | -.146\* (.066) | -.232 (.251) | -.118 (.095) | -.121 (.099) |
| Polity Squared |  | .004 (.013) | .002 (.005) | .002 (.005) |
| GDP per Capita (ln) | .590\*\* (.229) | .489\* (.244) | .272\*\* (.111) | .296\*\* (.112) |
| Youth Bulge | -.044 (.124) | -.061 (.116) | .027 (.055) | .038 (.054) |
| Region | .248 (.283) | .383 (.343) | .045 (.083) | .028 (.080) |
| Number of Protests(t-1) |  |  | -2.83\*\*\* (.395) | -2.50\*\*\* (.345) |
| Crowd Dispersal(t-1) |  |  |  | -.309 (.236) |
| Accommodation(t-1) |  |  |  | -12.70\*\*\* (2.48) |
| Coercion(t-1) |  |  |  | .077 (.163) |
|  |  |  |  |  |
| Constant | -7.31 (5.59) | -4.64 (4.28) | -.931 (1.65) | -1.19 (1.68) |
|  |  |  |  |  |
| N | 2831 | 2831 | 2751 | 2702 |
| Wald χ2 (Prob. > χ2) | 51.35 (0.0000) | 54.93 (0.0000) | 404.90 (0.0000) | 605.80 (0.0000) |
| alpha | 1.16 (.170) | 1.12 (.142) | .258\*\*\* (.045) | .261\*\*\* (.166) |
| Nonzero Obs. | 1742 | 1742 | 1718 | 1669 |
| Zero Obs. | 1089 | 1089 | 1033 | 1033 |
| Vuong | 5.61 (0.0000) | 5.80 (0.0000) | 10.41 (0.0000) | 10.05 (0.0000) |
| Country Clusters | 153 | 153 | 153 | 153 |

Robust standard errors in Parentheses clustered by country.

Two –tailed significance tests. \*\*\*p≤.001, \*\*p≤.01, \*p≤.05

**Robustness to Model Specification**

**Table A22: Descriptive Statistics for Robustness Checks**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ***Variable*** | ***N*** | ***Mean*** | ***Std. Dev.*** | ***Min.*** | ***Max.*** |
| ***Outcome Variable*** |  |  |  |  |  |
| State Response | 10104 | 1.87 | 1.07 | 1 | 4 |
| Disregard | n=5096 |  |  |  |  |
| Crowd Dispersal | n=2665 |  |  |  |  |
| Accommodation | n=920 |  |  |  |  |
| Coercion | n=1433 |  |  |  |  |
| ***Predictor Variables*** |  |  |  |  |  |
| Concession Costs Index | 10031 | 2.76 | .925 | 1 | 5 |
| Disruption Costs Index | 10092 | 4.32 | 1.48 | 1 | 9 |
| Alternative Disruption Costs Index | 9425 | 4.01 | 1.28 | 1 | 9 |
|  |  |  |  |  |  |
| ***Control Variables*** |  |  |  |  |  |
| Regime Type | 10574 | 1.11 | .488 | 1 | 4 |
| Head of State | 10598 | 1.90 | .458 | 1 | 4 |
| Party | 8313 | .192 | .394 | 0 | 1 |
| Military | 8313 | .035 | .183 | 0 | 1 |
| Monarchy | 8313 | .035 | .183 | 0 | 1 |
| Personal | 8313 | .151 | .358 | 0 | 1 |
| Democracy | 8279 | .568 | .495 | 0 | 1 |
| Physical Integrity | 9196 | 4.11 | 2.30 | 0 | 8 |
| Political Terror Scale | 10665 | 2.80 | 1.11 | 1 | 5 |
| Excluded Population | 8328 | 1.93 | 1.42 | 0 | 4.52 |
| Concession Costs Index(t-1) | 9858 | 2.76 | .925 | 1 | 5 |
| Disruption Costs Index(t-1) | 9933 | 4.33 | 1.48 | 1 | 9 |
| State Response(t-1) | 9944 | 1.87 | 1.07 | 1 | 4 |
| Youth Bulge | 11420 | 18.00 | 3.22 | 9.42 | 26.27 |
| GDP per Capita (ln) | 11095 | 7.87 | 1.55 | 3.91 | 11.36 |
| Corruption Demand | 11560 | .086 | .281 | 0 | 1 |
| Previous Violence | 11560 | .388 | .487 | 0 | 1 |
| Violent Protest | 10654 | .270 | .444 | 0 | 1 |
| Protest Violence(t-1) | 10494 | .269 | .450 | 0 | 1 |
| Protest Violence(t-2) | 9877 | .281 | .450 | 0 | 1 |
| Protest Size (ln) | 10133 | 6.358 | 2.255 | 3.912 | 15.761 |
| Number of Demands | 10122 | 1.16 | .424 | 1 | 3 |
|  |  |  |  |  |  |

**Table A23: Split Sample Multinomial Logit Regression Results**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Dependent Variable= State Response | Model A56 | Model A57 | Model A58 | Model A59 | Model A60 | Model A61 |
|  | Same Protester Identity | Different Protester Identity |
|  |  |  |  |  |  |  |
| **Base Category (Disregard)** |  |  |  |  |  |
| **Crowd Dispersal** |  |  |  |  |  |  |
| Concession Costs Index | .706\*\*\* (.090) | .709\*\*\* (.091) | .760\*\*\* (.094) | .616\*\*\* (.062) | .621\*\*\* (.061) | .667\*\*\* (.062) |
| Disruption Costs Index | -.224\*\*\* (.040) | -.225\*\*\* (.040) | -.207\*\*\* (.040) | -.129\*\*\* (.037) | -.132\*\*\* (.036) | -.132\*\*\* (.035) |
| Previous Violence | .454\*\*\* (.141) | .381\*\* (.146) | .553\*\*\* (.157) | .422\*\*\* (.083) | .352\*\*\* (.080) | .523\*\*\* (.088) |
| Number of Demands | -.496\*\* (.174) | -.508\*\* (.176) | -.497\*\* (.173) | -.052 (.142) | -.048 (.138) | -.041(.144) |
| Polity | -.163\* (.084) | -.151\* (.083) | -.139\* (.084) | -.134\*\*(.053) | -.135\*\* (.053) | -.134\*\* (.054) |
| Polity Squared | .006\*(.004) | .006 (.004) | .005 (.004) | .004\*(.002) | .004\*(.003) | .004\* (.003) |
| GDP per Capita (ln)  | -.041 (.079) | -.032 (.079) | -.033 (.079) | -.093(.073) | -.095 (.073) | -.098 (.073) |
| Youth Bulge (15-24) | .033 (.032) | .033 (.032) | .029 (.032) | .007(.028) | .003 (.027) | .003 (.028) |
| State Response(t-1) |  | .127\*\* (.044) |  |  | .120\*\*\* (.037) |  |
| Concession Costs Index(t-1) |  |  | -.163\*\* (.064) |  |  | -.160\*\*\* (.041) |
| Disruption Costs Index(t-1) |  |  | -.059 (.042) |  |  | .011 (.026) |
| Constant | -.710 (1.19) | -1.07 (1.20) | -.369 (1.17) | -.348 (.900) | -.499 (.899) | -.037 (.906) |
|  |  |  |  |  |  |  |
| **Accommodation** |  |  |  |  |  |  |
| Concession Costs Index | -.185\* (.091) | -.157\* (.094) | -.084 (.105) | -.188\*\* (.065) | -.190\*\* (.065) | -.173\*\* (.064) |
| Disruption Costs Index | .112\* (.064) | .110\* (.063) | .140\*\* (.060) | .224\*\*\*(.054) | .225\*\*\* (.054) | .222\*\*\* (.054) |
| Previous Violence | .358\* (.158) | .212 (.171) | .522\*\* (.177) | .333\*\*\*(.103) | .283\*\* (.107) | .405\*\*\* (.117) |
| Number of Demands | .145 (.179) | .111 (.183) | .111 (.183) | .307\*\*(.125) | .306\*\* (.125) | .328\*\* (.126) |
| Polity | -.027(.111) | -.012 (.112) | -.001 (.114) | -.178\*\*(.075) | -.179\*\* (.075) | -1.81\*\* (.076) |
| Polity Squared | .001(.005) | .001 (.005) | -.000 (.005) | .008\*\*(.003) | .008\*\* (.003) | .008\*\* (.003) |
| GDP per Capita (ln)  | -.182\*(.091) | -.201\* (.091) | -.195\* (.093) | -.245\*\*(.092) | -.237\*\* (.091) | -.243\*\* (.093) |
| Youth Bulge (15-24) | -.049 (.062) | -.058 (.061) | -.059 (.063) | .069\*(.038) | .068\* (.038) | .069\* (.039) |
| State Response(t-1) |  | .222\*\* (.082) |  |  | .083\* (.048) |  |
| Concession Costs Index(t-1) |  |  | -.291\*\*\* (.091) |  |  | -.105\* (.052) |
| Disruption Costs Index(t-1) |  |  | -.068 (.061) |  |  | .016 (.034) |
| Constant | .394 (1.74) | .150 (1.70) | 1.21 (1.86) | -1.53 (1.42) | -1.67 (1.39) | -1.36 (1.46) |
|  |  |  |  |  |  |  |
| **Coercion** |  |  |  |  |  |  |
| Concession Costs Index | .945\*\*\* (.131) | .961\*\*\* (.125) | 1.01\*\*\* (.149) | .844\*\*\*(.074) | .855\*\*\* (.072) | .875\*\*\* (.076) |
| Disruption Costs Index | -.024 (.061) | -.043 (.058) | -.043 (.058) | -.036(.048) | -.035 (.047) | -.048 (.046) |
| Previous Violence | .775\*\*\* (.154) | .441\*\*\* (.139) | .896\*\*\* (.168) | .610\*\*\*(.093) | .419\*\*\* (.096) | .697\*\*\* (.101) |
| Number of Demands | -.537\*\* (.211) | -.579\*\* (.203) | -.549\*\* (.212) | -.232(.156) | -.252 (.155) | -.192 (.161) |
| Polity | -.060(.110) | -.052 (.096) | -.031 (.108) | -.104(.066) | -.087 (.063) | -.095 (.067) |
| Polity Squared | -.000(.005) | -.000 (.004) | -.002 (.005) | .001(.003) | .001 (.003) | .001 (.003) |
| GDP per Capita (ln) | -.066(.180) | -.054 (.159) | -.055 (.173) | -.236\*(.110) | -.218\* (.103) | -.233\* (.111) |
| Youth Bulge (15-24) | .161\*\*\* (.041) | .146\*\*\* (.036) | .159\*\*\* (.041) | .124\*\*\*(.035) | .122\*\*\* (.033) | .125\*\*\* (.036) |
| State Response(t-1) |  | .467\*\*\* (.065) |  |  | .312\*\*\* (.052) |  |
| Concession Costs Index(t-1) |  |  | 1.01\*\*\* (.149) |  |  | .875\*\*\* (.076) |
| Disruption Costs Index(t-1) |  |  | -.043 (.058) |  |  | -.048 (.046) |
| Constant | -5.20\* (2.38) | -5.85\*\* (2.11) | -5.25\* (2.32) | -3.00\* (1.44) | -3.78\*\* (1.36) | -3.01\* (1.49) |
|  |  |  |  |  |  |  |
| N | 3088 | 3070 | 3035 | 6434 | 6364 | 6299 |
| Wald χ2 (Prob. > χ2) | 359.90 (0.0000) | 493.81 (0.0000) | 438.72 (0.0000) | 458.06 (0.0000) | 536.44 (0.0000) | 531.99 (0.0000) |
| Country Clusters | 129 | 129 | 129 | 150 | 149 | 148 |

Robust standard errors in Parentheses clustered by country. Two –tailed significance tests. \*\*\*p≤.001, \*\*p≤.01, \*p≤.05

**Table A24: Role of Corruption Demand & Protester Violence On Cost Parameters & State Response, Multinomial Logit Regression Results**

|  |  |  |  |
| --- | --- | --- | --- |
| D. V. = State Response | Model A62 | Model A63 | Model A64 |
| **Base Category (Disregard)** |  |  |
|  |  |  |  |
| **Crowd Control** |  |  |  |
| Concession Costs Index | .078 (.061) | .732\*\*\* (.058) | .114\* (.063) |
| Disruption Costs Index | -.124\*\*\* (.029) | -.163\*\*\* (.032) | -.126\*\*\* (.029) |
| Corruption Demand |  | .943\*\*\* (.123) | .262\* (.122) |
| Violent Protest | 2.51\*\*\* (.146) |  | 2.47\*\*\* (.147) |
| Previous Violence | .206\*\* (.080) | .426\*\*\* (.083) | .205\*\* (.080) |
| Number of Demands | .040 (.131) | -.450\*\*\* (.120) | -.036 (.135) |
| Polity | -.128\* (.058) | -.150\*\* (.051) | -.129\* (.058) |
| Polity Squared | .004 (.003) | .005\* (.002) | .004 (.003) |
| GDP per Capita (ln)  | -.023 (.067) | -.085 (.063) | -.024 (.066) |
| Youth Bulge (15-24) | .014 (.026) | .013 (.025) | .014 (.026) |
| Constant | -.145 (.878) | -.357 (.806) | -.149 (.872) |
|  |  |  |  |
| **Accommodation** |  |  |  |
| Concession Costs Index | -.457\*\*\* (.058) | -.169\*\* (.060) | -.473\*\*\* (.065) |
| Disruption Costs Index | .207\*\*\* (.048) | .194\*\*\* (.047) | .208\*\*\* (.048) |
| Corruption Demand |  | .214 (.156) | -.111 (.161) |
| Violent Protest | 1.74\*\*\* (.155) |  | 1.76\*\*\* (.155) |
| Previous Violence | .215\*\* (.080) | .335\*\*\* (.084) | .215\*\* (.080) |
| Number of Demands | .354\*\*\* (.108) | .186 (.114) | .391\*\*\* (.113) |
| Polity | -.121\* (.070) | -.132\* (.072) | -.120\* (.070) |
| Polity Squared | .005\* (.003) | .006\* (.003) | .005\* (.003) |
| GDP per Capita (ln)  | -.201\*\* (.078) | -.232\*\* (.078) | -.200\*\* (.077) |
| Youth Bulge (15-24) | .029 (.037) | .028 (.036) | .029 (.036) |
| Constant | -716 (1.25) | -.781 (1.24) | -.719 (1.24) |
|  |  |  |  |
| **Coercion** |  |  |  |
| Concession Costs Index | .150\* (.075) | .991\*\*\* (.083) | .155\* (.080) |
| Disruption Costs Index | .029 (.044) | -.028 (.047) | .030 (.045) |
| Corruption Demand |  | 1.02\*\*\* (.195) | .044 (.205) |
| Violent Protest | 3.07\*\*\* (.190) |  | 3.06\*\*\* (.198) |
| Previous Violence | .394\*\*\* (.087) | .666\*\*\* (.098) | .396\*\*\* (.087) |
| Number of Demands | .031 (.147) | -.592\*\*\* (.155) | .016 (.153) |
| Polity | -.070 (.074) | -.091 (.075) | -.071 (.074) |
| Polity Squared | -.001 (.004) | .001 (.004) | -.001 (.004) |
| GDP per Capita (ln) | -.093 (.123) | -.170 (.132) | -.094 (.123) |
| Youth Bulge (15-24) | .143\*\*\* (.034) | .140\*\*\* (.032) | .144\*\*\* (.034) |
| Constant | -3.80\*\* (1.55) | -3.96\*\* (1.67) | -3.80\*\* (1.55) |
|  |  |  |  |
| N | 9522 | 9522 | 9522 |
| Wald χ2 (Prob. > χ2) | 762.58 (0.0000) | 616.45 (0.0000) | 783.97 (0.0000) |

Robust standard errors in Parentheses, clustered by country. Two –tailed significance tests. \*\*\*p≤0.001, \*\*p≤0.01, \*p≤0.05

**Table A25: Robustness Check – Alternative Political Regime & Human Rights Specifications [Multinomial Logit]**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Model A65 | Model A66 | Model A67 | Model A68 | Model A69 |
| Dependent Variable = State Response |
| *Time Period* | 1990-2013 | 1990-2011 |
| **Base Category (Disregard)** |
|  |  |  |  |  |  |
| **Crowd Control** |  |  |  |  |  |
| Concession Costs Index | .587\*\*\* (.057) | .588\*\*\* (.058) | .604\*\*\* (.056) | .586\*\*\* (.063) | .602\*\*\* (.061) |
| Disruption Costs Index | -.173\*\*\* (.034) | -.172\*\*\* (.033) | -.164\*\*\* (.032) | -.188\*\*\* (.033) | -.178\*\*\* (.031) |
| Regime Type | -.022 (.182) | -.018 (.180) |  | .071 (.151) |  |
| Head of State | -.033 (.178) | -.029 (.179) |  | .041 (.183) |  |
| Physical Integrity |  |  |  | -.011 (.034) | -.000 (.032) |
| Political Terror Scale |  | -.026 (.073) | -.025 (.066) |  |  |
| Previous Violence | .444\*\*\* (.095) | .439\*\*\* (.095) | .447\*\*\* (.091) | .446\*\*\* (.095) | .456\*\*\* (.091) |
| Number of Demands | -.209 (.154) | -.204 (.155) | -.204 (.151) | -.209 (.171) | -.208 (.171) |
| Polity |  |  | -.141\*\* (.051) |  | -.124\* (.054) |
| Polity Squared |  |  | .005\* (.002) |  | .004 (.003) |
| GDP per Capita (ln)  | -.113\* (.068) | -.119\* (.067) | -.106 (.066) | -.146\* (.066) | -.132\* (.066) |
| Youth Population (ln) | -.004 (.028) | -.001 (.028) | -.001 (.028) | -.027 (.031) | -.021 (.032) |
|  |  |  |  |  |  |
| Constant | -.430 (1.02) | -.378 (1.03) | .261 (.906) | .140 (1.12) | .717 (.977) |
|  |  |  |  |  |  |
| **Accommodation** |  |  |  |  |  |
| Concession Costs Index | -.205\*\*\* (.056) | -.203\*\*\* (.058) | -.199\*\*\* (.056) | -.215\*\*\* (.065) | -.209\*\*\* (.063) |
| Disruption Costs Index | .213\*\*\* (.050) | .215\*\*\* (.051) | .209\*\*\* (.051) | .208\*\*\* (.053) | .201\*\*\* (.054) |
| Regime Type | -.317\* (.176) | -.296\* (.174) |  | -.142 (.138) |  |
| Head of State | -.252 (.181) | -.249 (.180) |  | -.260 (.175) |  |
| Physical Integrity |  |  |  | .019 (.038) | .011 (.034) |
| Political Terror Scale |  | -.037 (.078) | -.027 (.080) |  |  |
| Previous Violence | .401\*\*\* (.088) | .407\*\*\* (.089) | .375\*\*\* (.090) | .413\*\*\* (.099) | .392\*\*\* (.102) |
| Number of Demands | .265\*\* (.111) | .256\* (.111) | .220\* (.110) | .278\* (.121) | .240\* (.113) |
| Polity |  |  | -.159\* (.078) |  | -.164\* (.077) |
| Polity Squared |  |  | .008\* (.003) |  | .008\*\* (.003) |
| GDP per Capita (ln)  | -.175\*\* (.066) | -.183\*\* (.067) | -.227\*\* (.079) | -.191\*\* (.068) | -.245\*\*\* (.080) |
| Youth Population (ln) | .047 (.033) | .048 (.034) | .054 (.036) | .050 (.038) | .056 (.039) |
|  |  |  |  |  |  |
| Constant | -1.31 (1.11) | -1.20 (1.13) | -1.25 (1.26) | -1.47 (1.16) | -1.22 (1.39) |
|  |  |  |  |  |  |
| **Coercion** |  |  |  |  |  |
| Concession Costs Index | .840\*\*\* (.083) | .831\*\*\* (.085) | .856\*\*\* (.082) | .833\*\*\* (.091) | .855\*\*\* (.088) |
| Disruption Costs Index | -.040 (.049) | -.048 (.049) | -.039 (.047) | -.056 (.051) | -.043 (.050) |
| Regime Type | .073 (.134) | .010 (.137) |  | .065 (.131) |  |
| Head of State | .041 (.215) | .019 (.219) |  | .148 (.199) |  |
| Physical Integrity |  |  |  | -.117\*\* (.039) | -.091\* (.042) |
| Political Terror Scale |  | .192\* (.095) | .156\* (.094) |  |  |
| Previous Violence | .682\*\*\* (.099) | .688\*\*\* (.099) | .727\*\*\* (.099) | .681\*\*\* (.110) | .732\*\*\* (.110) |
| Number of Demands | -.269\* (.149) | -.255\* (.150) | -.289\* (.156) | -.230 (.167) | -.285\* (.173) |
| Polity |  |  | -.091 (.081) |  | -.064 (.084) |
| Polity Squared |  |  | .001 (.004) |  | .000 (.004) |
| GDP per Capita (ln) | -.228\* (.115) | -.188 (.114) | -.136 (.128) | -.237\* (.125) | -.179 (.138) |
| Youth Population (ln) | .143\*\*\* (.039) | .137\*\*\* (.039) | .123\*\*\* (.034) | .106\*\* (.039) | .104\*\* (.036) |
|  |  |  |  |  |  |
| Constant | -4.60\*\* (1.63) | -5.21\*\*\* (1.55) | -4.27\*\* (1.57) | -3.55\* (1.71) | -2.96\* (1.77) |
|  |  |  |  |  |  |
| N | 8790 | 8768 | 8813 | 7538 | 7588 |
| Wald χ2 (Prob. > χ2) | 374.84 (0.0000) | 477.68 (0.0000) | 600.85 (0.0000) | 457.23 (0.0000) | 521.85 (0.0000) |
| Country Clusters | 152 | 152 | 151 | 151 | 150 |

Robust standard errors in Parentheses, clustered by country.

Two tailed significance tests. \*\*\*p ≤ 0.001, \*\* p≤ 0.01, \* p ≤ 0.05

**Table A26: Robustness Check – Government Type [Multinomial Logit]**

|  |  |
| --- | --- |
|  | Model A70 |
| Dependent Variable = State Response |
| **Base Category (Disregard)** |  |
| **Crowd Control** |  |
| Concession Costs Index | .577\*\*\* (.061) |
| Disruption Costs Index | -.172\*\*\* (.033) |
| Party | .572 (.383) |
| Monarchy | .746\* (.382) |
| Personal | .497 (.351) |
| Democracy | .397 (.353) |
| Previous Violence | .451\*\*\* (.103) |
| Number of Demands | -.267 (.171) |
| GDP per Capita (ln)  | -.138\* (.069) |
| Youth Population (ln) | -.010 (.033) |
|  |  |
| Constant | -.554 (1.06) |
|  |  |
| **Accommodation** |  |
| Concession Costs Index | -.225\*\*\* (.070) |
| Disruption Costs Index | .195\*\*\* (.058) |
| Party | .474\* (.270) |
| Monarchy | .072 (.282) |
| Personal | .004 (.259) |
| Democracy | .330 (.256) |
| Previous Violence | .321\*\*\* (.099) |
| Number of Demands | .191 (.144) |
| GDP per Capita (ln)  | -.203\*\* (.069) |
| Youth Population (ln) | .041 (.037) |
|  |  |
| Constant | -1.88\* (1.11) |
|  |  |
| **Coercion** |  |
| Concession Costs Index | .872\*\*\* (.095) |
| Disruption Costs Index | -.048 (.056) |
| Party | .755\*\*\* (.248) |
| Monarchy | 1.35\*\*\* (.260) |
| Personal | .612\*\* (.254) |
| Democracy | .271 (.227) |
| Previous Violence | .757\*\*\* (.120) |
| Number of Demands | -.502\*\*\* (.156) |
| GDP per Capita (ln) | -.276\* (.137) |
| Youth Population (ln) | .112\*\* (.041) |
|  |  |
| Constant | -3.80\* (1.83) |
|  |  |
| N | 6858 |
| Wald χ2 (Prob. > χ2) | 466.69 (0.0000) |
| Country Clusters | 138 |

Robust standard errors in Parentheses, clustered by country.

Two tailed significance tests. \*\*\*p ≤ 0.001, \*\* p≤ 0.01, \* p ≤ 0.05

**Table A27: Robustness Check – Ethnopolitical Relations Specifications [Multinomial Logit]**

|  |  |
| --- | --- |
|  | Model A71 |
| DependentVariable = State Response |
| **Base Category (Disregard)** |  |
|  |  |
| **Crowd Control** |  |
| Concession Costs Index | .587\*\*\* (.062) |
| Disruption Costs Index | -.172\*\*\* (.032) |
| Previous Violence | .440\*\*\* (.102) |
| Number of Demands | -.242 (.173) |
| Polity | -.124\* (.062) |
| Polity Squared | .004 (.003) |
| GDP per Capita (ln)  | -.115 (.071) |
| Youth Population (ln) | .009 (.033) |
| Excluded Population | -.063 (.050) |
|  |  |
| Constant | .233 (1.01) |
|  |  |
| **Accommodation** |  |
| Concession Costs Index | -.209\*\*\* (.066) |
| Disruption Costs Index | .198\*\*\* (.059) |
| Previous Violence | .313\*\*\* (.101) |
| Number of Demands | .157 (.144) |
| Polity | -.161\* (.078) |
| Polity Squared | .008\*\* (.003) |
| GDP per Capita (ln)  | -.259\*\*\* (.084) |
| Youth Population (ln) | .072\* (.040) |
| Excluded Population | -.014 (.054) |
|  |  |
| Constant | -1.34 (1.40) |
|  |  |
| **Coercion** |  |
| Concession Costs Index | .868\*\*\* (.095) |
| Disruption Costs Index | -.053 (.053) |
| Previous Violence | .737\*\*\* (.116) |
| Number of Demands | -.445\*\* (.156) |
| Polity | -.066 (.093) |
| Polity Squared | .000 (.005) |
| GDP per Capita (ln) | -.208 (.146) |
| Youth Population (ln) | .126\*\*\* (.038) |
| Excluded Population | -.036 (.087) |
|  |  |
| Constant | -3.23\* (1.73) |
|  |  |
| N | 6838 |
| Wald χ2 (Prob. > χ2) | 522.42 (0.0000) |
| Country Clusters | 136 |

Robust standard errors in Parentheses, clustered by country.

Two tailed significance tests. \*\*\*p ≤ 0.001, \*\* p≤ 0.01, \* p ≤ 0.05

**Table A28: Robustness Check – Alternative Disruption Costs Index Specification [Multinomial Logit]**

|  |  |  |
| --- | --- | --- |
|  | Model A72 | Model A73 |
| Dependent Variable = State Response |
| **Base Category (Disregard)** |  |  |
|  |  |  |
| **Crowd Control** |  |  |
| Concession Costs Index | .613\*\*\* (.057) | .653\*\*\* (.053) |
| Disruption Costs Index | -.053\* (.031) | .016 (.031) |
| Protest Size (ln) |  | -.161\*\*\* (.025) |
| Previous Violence |  | .464\*\*\* (.086) |
| Number of Demands |  | -.211 (.145) |
| Polity |  | -.155\*\* (.055) |
| Polity Squared |  | .006\* (.003) |
| GDP per Capita (ln)  |  | -.069 (.067) |
| Youth Population (ln) |  | .011 (.025) |
| Constant | -2.17\*\*\* (.206) | -.200 (.839) |
|  |  |  |
| **Accommodation** |  |  |
| Concession Costs Index | -.155\*\* (.058) | -.199\*\*\* (.056) |
| Disruption Costs Index | .314\*\*\* (.042) | .330\*\*\* (.044) |
| Protest Size (ln) |  | -.015 (.024) |
| Previous Violence |  | .350\*\*\* (.088) |
| Number of Demands |  | .169 (.112) |
| Polity |  | -.138\* (.073) |
| Polity Squared |  | .007\* (.003) |
| GDP per Capita (ln)  |  | -.237\*\* (.081) |
| Youth Population (ln) |  | .025 (.034) |
| Constant | -2.66\*\*\* (.255) | -.982 (1.24) |
|  |  |  |
| **Coercion** |  |  |
| Concession Costs Index | .922\*\*\* (.080) | .922\*\*\* (.080) |
| Disruption Costs Index | -.012 (.043) | .089\*\* (.035) |
| Protest Size (ln) |  | -.088\*\* (.034) |
| Previous Violence |  | .737\*\*\* (.104) |
| Number of Demands |  | -.382\*\* (.160) |
| Polity |  | -.102 (.081) |
| Polity Squared |  | .001 (.004) |
| GDP per Capita (ln) |  | -.152 (.139) |
| Youth Population (ln) |  | .142\*\*\* (.033) |
| Constant | -3.96\*\*\* (.356) | -4.08\* (1.86) |
|  |  |  |
| N | 9392 | 8994 |
| Wald χ2 (Prob. > χ2) | 228.29 (0.0000) | 814.02 (0.0000) |
| Country Clusters | 153 | 146 |

Robust standard errors in Parentheses, clustered by country.

Two tailed significance tests. \*\*\*p ≤ 0.001, \*\* p≤ 0.01, \* p ≤ 0.05

**Table A29: Robustness Check – Split Protest Violence(t-1) [Multinomial Logit]**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Model A74 | Model A75 | Model A76 | Model A77 |
| Dependent Variable = State Response |
| **Base Category (Disregard)** |
|  |  |  |  |  |
| **Crowd Dispersal** |  |  |  |  |
| Concession Costs Index | .616\*\*\* (.055) | .624\*\*\* (.058) | .620\*\*\* (.053) | .629\*\*\* (.054) |
| Disruption Costs Index | -.184\*\*\* (.035) | -.165\*\*\* (.035) | -.175\*\*\* (.033) | -.158\*\*\* (.033) |
| Protest Violence(t-1) |  |  | .490\*\*\* (.093) | .444\*\*\* (.085) |
| Protest Violence(t-2) |  |  | .343\*\*\* (.085) | .311\*\*\* (.078) |
| Number of Demands |  |  | -.218\* (.124) | -.188 (.139) |
| Polity |  | -.141\*\* (.052) |  | -.149\*\* (.053) |
| Polity Squared |  | .005\* (.002) |  | .005\* (.002) |
| GDP per Capita (ln)  |  | -.109 (.068) |  | -.079 (.065) |
| Youth Bulge (15-24) |  | .016 (.026) |  | .012 (.026) |
| Constant | -1.59\*\*\* (.249) | -.239 (.847) | -1.62\*\*\* (.296) | -.385 (.834) |
|  |  |  |  |  |
| **Accommodation** |  |  |  |  |
| Concession Costs Index | -.136\*\* (.058) | -.148\*\* (.054) | -.175\*\* (.060) | -.188\*\*\* (.056) |
| Disruption Costs Index | .184\*\*\* (.047) | .195\*\*\* (.048) | .188\*\*\* (.047) | .198\*\*\* (.048) |
| Protest Violence(t-1) |  |  | .447\*\*\* (.088) | .341\*\*\* (.081) |
| Protest Violence(t-2) |  |  | .240\*\* (.087) | .120 (.085) |
| Number of Demands |  |  | .181 (.117) | .239\* (.108) |
| Polity |  | -.134\* (.072) |  | -.139\*(.074) |
| Polity Squared |  | .006\* (.003) |  | .007\*(.003) |
| GDP per Capita (ln)  |  | -.255\*\*\* (.080) |  | -.242\*\*\* (.080) |
| Youth Bulge (15-24) |  | .023 (.035) |  | .025 (.036) |
| Constant | -2.22\*\*\* (.285) | -.210 (1.23) | -2.53\*\*\* (.295) | -.635 (1.28) |
|  |  |  |  |  |
| **Coercion** |  |  |  |  |
| Concession Costs Index | .889\*\*\* (.075) | .869\*\*\* (.073) | .907\*\*\* (.077) | .892\*\*\* (.079) |
| Disruption Costs Index | -.078\* (.047) | -.036 (.047) | -.054 (.046) | -.021 (.047) |
| Protest Violence(t-1) |  |  | .713\*\*\* (.095) | .602\*\*\* (.096) |
| Protest Violence(t-2) |  |  | .669\*\*\* (.097) | .538\*\*\* (.098) |
| Number of Demands |  |  | -.448\*\*\* (.141) | -.331\* (.152) |
| Polity |  | -.082 (.080) |  | -.082(.074) |
| Polity Squared |  | .001 (.004) |  | .000 (.003) |
| GDP per Capita (ln) |  | -.214(.140) |  | -.156 (.129) |
| Youth Bulge (15-24) |  | .143\*\*\* (.034) |  | .140\*\*\* (.031) |
| Constant | -3.52\*\*\* (.384) | -3.67\* (1.83) | -3.59\*\*\* (.384) | -4.14\*\* (1.64) |
|  |  |  |  |  |
| N | 9965 | 9522 | 9777 | 9351 |
| Wald χ2 (Prob. > χ2) | 247.75 (0.0000) | 461.05 (0.0000) | 315.22 (0.0000) | 624.15 (0.0000) |
| Country Clusters | 160 | 152 | 153 | 147 |

Robust standard errors in Parentheses clustered by country.

Two –tailed significance tests. \*\*\*p≤.001, \*\*p≤.01, \*p≤.05

**Table A30: Determinants of State Response(t) [Multinomial Logit]**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Model A78 | Model A79 | Model A80 | Model A81 | Model A82 |
| Dependent Variable = State Response(t) |
| **Base Category (Disregard)** |
|  |  |  |  |  |  |
| **Crowd Control** |  |  |  |  |  |
| Concession Costs Index(t) | .617\*\*\* (.055) | .639\*\*\* (.054) | .638\*\*\* (.054) | .712\*\*\* (.056) | .637\*\*\* (.052) |
| Disruption Costs Index(t) | -.183\*\*\* (.034) | -.179\*\*\* (.033) | -.158\*\*\* (.031) | -.153\*\*\* (.029) | -.153\*\*\* (.030) |
| State Response(t-1) | .227\*\*\* (.039) |  | .102\*\*\* (.033) |  |  |
| Disregard(t-1) |  |  |  |  | -.294 (.260) |
| Accommodate(t-1) |  |  |  |  | -.091 (.253) |
| Crowd Control(t-1) |  |  |  |  | .482\* (.253) |
| Coercion(t-1) |  |  |  |  | .031 (.264) |
| Protest Violence(t-1) |  |  | .402\*\*\* (.091) | .737\*\*\* (.106) | .170\* (.093) |
| Number of Demands |  |  | -.187 (.139) | -.183 (.143) | -.204 (.130) |
| Region |  |  | .016 (.039) | .014 (.039) | .020 (.035) |
| Polity |  |  | -.143\*\* (.052) | -.134\*\* (.052) | -.131\*\* (.046) |
| Polity Squared |  |  | .005\* (.002) | .005\* (.002) | .005\* (.002) |
| Youth Bulge |  |  | .012 (.025) | .009 (.025) | .014 (.023) |
| GDP per Capita (ln) |  |  | -.083 (.070) | -.084 (.070) | -.084 (.065) |
| Concession Cost Index(t-1) |  | -.049 (.034) |  | -.247\*\*\* (.040) |  |
| Disruption Cost Index(t-1) |  | -.029 (.023) |  | -.008 (.021) |  |
|  |  |  |  |  |  |
| Constant | -2.02\*\*\* (.280) | -1.42\*\*\* (.297) | -.624 (.953) | .023 (.954) | -.477 (.930) |
|  |  |  |  |  |  |
| **Accommodation** |  |  |  |  |  |
| Concession Costs Index | -.137\*\* (.058) | -.130\* (.057) | -.180\*\*\* (.055) | -.141\*\* (.056) | -.178\*\*\* (.055) |
| Disruption Costs Index | .187\*\*\* (.047) | .192\*\*\* (.045) | .209\*\*\* (.043) | .215\*\*\* (.043) | .209\*\*\* (.043) |
| State Response(t-1) |  |  | .118\*\* (.050) |  |  |
| Disregard(t-1) |  |  |  |  | -.003 (.402) |
| Accommodate(t-1) |  |  |  |  | .772\* (.419) |
| Crowd Control(t-1) |  |  |  |  | .044 (.384) |
| Coercion(t-1) |  |  |  |  | -.120 (.411) |
| Protest Violence(t-1) |  |  | .237\*\* (.090) | .564\*\*\* (.110) | .375\*\*\* (.093) |
| Number of Demands |  |  | .219\* (.102) | .233\* (.103) | .210\* (.100) |
| Region |  |  | .056 (.046) | .060 (.045) | .060 (.042) |
| Polity |  |  | -.126\* (.073) | -.124\* (.073) | -.120\* (.068) |
| Polity Squared |  |  | .006\* (.003) | .006\* (.003) | .006\* (.003) |
| Youth Bulge |  |  | .029 (.037) | .029 (.038) | .031 (.034) |
| GDP per Capita (ln) |  |  | -.216\*\* (.082) | -.218\*\* (.082) | -.202\*\* (.074) |
| Concession Cost Index(t-1) |  | -.046 (.041) |  | -.213\*\*\* (.051) |  |
| Disruption Cost Index(t-1) |  | -.027 (.032) |  | .215\*\*\* (.043) |  |
|  |  |  |  |  |  |
| Constant | -2.66\*\*\* (.310) | -2.03\*\*\* (.332) | -1.51 (1.42) | -.935 (1.51) | -1.55 (1.38) |
|  |  |  |  |  |  |
| **Coercion** |  |  |  |  |  |
| Concession Costs Index | .876\*\*\* (.067) | .872\*\*\* (.072) | .905\*\*\* (.074) | .957\*\*\* (.084) | .894\*\*\* (.073) |
| Disruption Costs Index | -.076\* (.043) | -.083\* (.041) | -.013 (.047) | -.019 (.045) | -.011 (.047) |
| State Response(t-1) | .564\*\*\* (.053) |  | .369\*\*\* (.046) |  |  |
| Disregard(t-1) |  |  |  |  | -1.10\*\* (.367) |
| Accommodate(t-1) |  |  |  |  | -.675\* (.380) |
| Crowd Control(t-1) |  |  |  |  | -.470 (.358) |
| Coercion(t-1) |  |  |  |  | .050 (.353) |
| Protest Violence(t-1) |  |  | .340\*\*\* (.092) | .902\*\*\* (.141) | .216\* (.099) |
| Number of Demands |  |  | -.388\*\* (.150) | -.345\* (.158) | -.367\*\* (.149) |
| Region |  |  | .078\* (.044) | .098\* (.048) | .081\* (.044) |
| Polity |  |  | -.075 (.066) | -.071 (.072) | -.074 (.066) |
| Polity Squared |  |  | .001 (.003) | .000 (.003) | .001 (.003) |
| Youth Bulge |  |  | .131\*\*\* (.029) | .138\*\*\* (.033) | .129\*\*\* (.029) |
| GDP per Capita (ln) |  |  | -.135 (.123) | -.134 (.131) | -.142 (.122) |
| Concession Cost Index(t-1) |  | .081\* (.047) |  | -.216\*\*\* (.060) |  |
| Disruption Cost Index(t-1) |  | -.007 (.036) |  | .060\* (.036) |  |
|  |  |  |  |  |  |
| Constant | -4.63\*\*\* (.396) | -3.67\*\*\* (.481) | -5.19\*\*\* (1.67) | -4.62\*\* (1.82) | -3.68\* (1.59) |
|  |  |  |  |  |  |
| N | 9867 | 9755 | 9434 | 9334 | 9462 |
| Wald χ2 (Prob. > χ2) | 354.28 (0.0000) | 293.41 (0.0000) | 826.04 (0.0000) | 772.10 (0.0000) | 1134.70 (0.0000) |
| Country Clusters | 157 | 156 | 151 | 150 | 151 |

Robust standard errors in Parentheses clustered by country.

Two –tailed significance tests. \*\*\*p≤.001, \*\*p≤.01, \*p≤.05

**Table A31: Robustness Check - Fixed Effects by Country [Multinomial Logit]**

|  |  |
| --- | --- |
|  | Model A83  |
| Dependent Variable = State Response |  |
| **Base Category (Disregard)** |  |
|  |  |
| **Crowd Dispersal** |  |
| Concession Costs Index | .692\*\*\* (.035) |
| Disruption Costs Index | -.175\*\*\* (.020) |
| Previous Violence | .245\*\*\* (.058) |
| Number of Demands | -.228\*\*\* (.069) |
| Polity | -.077 (.048) |
| Polity Squared | .003 (.002) |
| GDP per Capita (ln)  | -.070 (.147) |
| Youth Bulge (15-24) | .002 (.028) |
|  |  |
| Constant | -.635 (1.71) |
|  |  |
| **Accommodation** |  |
| Concession Costs Index | -.131\*\* (.047) |
| Disruption Costs Index | .233\*\*\* (.030) |
| Previous Violence | .313\*\*\* (.083) |
| Number of Demands | .229\* (.102) |
| Polity | -.051 (.081) |
| Polity Squared | .004 (.003) |
| GDP per Capita (ln)  | .125 (.201) |
| Youth Bulge (15-24) | -.074\* (.037) |
|  |  |
| Constant | -1.60 (2.38) |
|  |  |
| **Coercion** |  |
| Concession Costs Index | .976\*\*\* (.048) |
| Disruption Costs Index | -.040 (.028) |
| Previous Violence | .329\*\*\* (.076) |
| Number of Demands | -.332\*\*\* (.098) |
| Polity | -.092 (.058) |
| Polity Squared | .003 (.003) |
| GDP per Capita (ln) | -.648\*\*\* (.168) |
| Youth Bulge (15-24) | .118\*\*\* (.034) |
|  |  |
| Constant | 1.34 (2.10) |
|  |  |
| N | 9512 |
| Wald χ2 (Prob. > χ2) | 368617.97 (0.0000) |

Robust standard errors in Parentheses.

Two tailed significance tests. \*\*\*p ≤ 0.001, \*\* p≤ 0.01, \* p ≤ 0.05

|  |
| --- |
| Country-Panel Estimates Reference Country is Canada |
| **Country** | **Crowd Control Coefficient** | **Accommodate Coefficient** | **Coercion Coefficient** |
| Afghanistan | -20.92\*\*\* | -19.34\*\*\* | -23.61\*\*\* |
|  | (-0.845) | (-1.179) | (-1.157) |
| Albania | -0.613 | -19.61\*\*\* | -21.30\*\*\* |
|  | (-0.815) | (-0.88) | (-0.925) |
| Algeria | 0.261 | 1.259 | -0.77 |
|  | (-0.713) | (-1.133) | (-1.005) |
| Angola | 0.178 | -18.39\*\*\* | -0.786 |
|  | (-0.859) | (-0.976) | (-1.146) |
| Argentina | -0.463 | 1.028 | -1.813 |
|  | (-0.544) | (-0.824) | (-0.971) |
| Armenia | -1.836\* | -19.64\*\*\* | -3.241\*\* |
|  | (-0.787) | (-0.964) | (-1.085) |
| Austria | -0.611 | -19.86\*\*\* | 0.333 |
|  | (-0.827) | (-0.785) | (-1.232) |
| Azerbaijan | 0.261 | 0.955 | -1.763 |
|  | (-0.649) | (-1.075) | (-1.007) |
| Bahrain | 1.601\* | 2.007 | 0.858 |
|  | (-0.653) | (-1.037) | (-1.028) |
| Bangladesh | 0.85 | 0.377 | -1.658 |
|  | (-0.714) | (-1.127) | (-1.058) |
| Belarus | 0.414 | -18.24\*\*\* | -0.438 |
|  | (-0.66) | (-0.907) | (-1.008) |
| Belgium | -0.332 | 0.1 | -18.26\*\*\* |
|  | (-0.923) | (-1.304) | (-0.925) |
| Benin | -0.337 | 0.985 | -3.870\*\* |
|  | (-0.825) | (-1.217) | (-1.457) |
| Bolivia | -0.0527 | 1.682 | -1.816 |
|  | (-0.675) | (-0.997) | (-1.024) |
| Botswana | -0.513 | 1.48 | -2.257 |
|  | (-0.665) | (-0.967) | (-1.161) |
| Brazil | -0.541 | 0.465 | -1.960\* |
|  | (-0.523) | (-0.838) | (-0.914) |
| Bulgaria | -0.419 | 0.701 | -19.73\*\*\* |
|  | (-0.73) | (-0.886) | (-0.928) |
| Burkina Faso | 0.255 | 1.911 | -3.009\* |
|  | (-0.806) | (-1.164) | (-1.182) |
| Burundi | -0.627 | 0.186 | -3.372\*\* |
|  | (-0.900) | (-1.366) | (-1.242) |
| Cambodia | 0.0441 | -0.298 | -1.872 |
|  | (-0.816) | (-1.448) | (-1.17) |
| Cameroon | 0.782 | 0.85 | -1.153 |
|  | (-0.804) | (-1.454) | (-1.123) |
| Central African Republic | 0.0464 | -0.426 | -1.482 |
|  | (-0.853) | (-1.529) | (-1.161) |
| Chad | 1.829 | 3.163 | -0.379 |
|  | (-1.321) | (-1.816) | (-1.669) |
| Chile | 1.089\* | -0.409 | -1.746 |
|  | (-0.479) | (-0.907) | (-0.969) |
| China | 0.261 | 1.945\* | -0.786 |
|  | (-0.579) | (-0.922) | (-0.954) |
| Colombia | -0.801 | -0.121 | -2.081\* |
|  | (-0.565) | (-0.904) | (-0.946) |
| Comoros | 0.199 | 0.562 | -1.566 |
|  | (-0.767) | (-1.277) | (-1.097) |
| Costa Rica | -0.0803 | 0.718 | -1.546 |
|  | (-0.674) | (-0.915) | (-1.143) |
| Croatia | -1.495 | -20.15\*\*\* | -19.94\*\*\* |
|  | (-1.073) | (-0.81) | (-0.889) |
| Cuba | 1.319 | -18.31\*\*\* | -20.37\*\*\* |
|  | (-1.304) | (-1.317) | (-1.336) |
| Cyprus | 0.455 | 1.096 | -18.89\*\*\* |
|  | (-0.449) | (-0.75) | (-0.806) |
| Czech Republic | 0.468 | 0.747 | -18.91\*\*\* |
|  | (-0.973) | (-1.405) | (-0.954) |
| Democratic Republic of the Congo | -0.429 | -0.226 | -2.077 |
|  | (-0.876) | (-1.534) | (-1.181) |
| Denmark | 1.62 | -18.61\*\*\* | 2.480\* |
|  | (-0.845) | (-0.97) | (-1.234) |
| Djibouti | 1.607 | -34.85\*\*\* | 1.562 |
|  | (-1.337) | (-1.451) | (-1.41) |
| Dominican Republic | 0.665 | 0.903 | 0.144 |
|  | (-0.702)  | (-1.15) | (-1.007) |
| East Timor | 0.153 | 1.653 | -2.687 |
|  | (-1.064) | (-1.382) | (-1.534) |
| Ecuador | 0.765 | 1.091 | -1.098 |
|  | (-0.568) | (-0.888) | (-0.943) |
| Egypt | -0.0922 | 0.535 | -1.086 |
|  | (-0.654) | (-1.068) | (-0.987) |
| El Salvador | -0.134 | -0.0062 | -1.645 |
|  | (-0.651) | (-1.132) | (-1.016) |
| Equatorial Guinea | 0.0594 | -18.22\*\*\* | -0.647 |
|  | (-1.431) | (-1.138) | (-1.733) |
| Equatorial Guinea | 0.0594 | -18.22\*\*\* | -0.647 |
|  | (-1.431) | (-1.138) | (-1.733) |
| Ethiopia | -0.472 | 0.363 | -1.763 |
|  | (-1.143) | (-1.594) | (-1.283) |
| Finland | -19.57\*\*\* | -20.44\*\*\* | -18.13\*\*\* |
|  | (-0.655) | (-0.852) | (-0.985) |
| France | 0.255 | -0.0268 | -18.38\*\*\* |
|  | (-0.436) | (-0.748) | (-0.795) |
| Gabon | 0.94 | 1.653 | -0.200 |
|  | (-0.64) | (-1.118) | (-1.000) |
| Gambia | 0.599 | 2.866 | -0.658 |
|  | (-1.563) | (-1.782) | (-1.504) |
| Georgia | -0.799 | 1.294 | -1.125 |
|  | (-0.762) | (-0.995) | (-1.054) |
| Germany | 0.308 | -1.193 | -0.485 |
|  | (-0.445) | (-0.915) | (-0.978) |
| Ghana | -0.000819 | 1.774 | -2.727\* |
|  | (-0.783) | (-1.123) | (-1.185) |
| Greece | 0.133 | -0.923 | -1.595 |
|  | (-0.433) | (-0.786) | (-0.984) |
| Guatemala | -1.176 | -0.231 | -2.788\*\* |
|  | (-0.658) | (-1.017) | (-1.028) |
| Guinea | 1.882\* | 2.859\* | 0.198 |
|  | (-0.952) | (-1.344) | (-1.25) |
| Guinea-Bissau | 0.0622 | 1.977 | -2.621\* |
|  | (-0.891) | (-1.235) | (-1.299) |
| Guyana | 0.394 | 1.531 | -1.263 |
|  | (-0.767) | (-1.088) | (-1.13) |
| Haiti | -0.932 | 0.279 | -3.525\*\* |
|  | (-0.79) | (-1.233) | (-1.134) |
| Honduras | -0.059 | 0.867 | -2.739\* |
|  | (-0.665) | (-1.013) | (-1.071) |
| Hungary | -0.361 | -1.296 | -20.04\*\*\* |
|  | (-0.576) | (-1.247) | (-0.851) |
| India | 0.133 | 1.098 | -1.228 |
|  | (-0.683) | (-1.033) | (-1.028) |
| Indonesia | 0.531 | 1.263 | -1.955 |
|  | (-0.646) | (-0.98) | (-1.013) |
| Iran | 0.604 | 1.931 | -0.584 |
|  | (-0.628) | (-0.992) | (-0.97) |
| Iraq | -2.113\* | -0.237 | -1.586 |
|  | (-0.954) | (-1.358) | (-1.015) |
| Ireland | -1.600\*\*\* | -0.558 | -19.02\*\*\* |
|  | (-0.452) | (-0.756) | (-0.795) |
| Italy | 0.413 | -0.277 | -18.23\*\*\* |
|  | (-0.457) | (-0.796) | (-0.807) |
| Ivory Coast | -0.392 | 0.907 | -1.617 |
|  | (-0.688) | (-1.088) | (-1.025) |
| Japan | -1.275 | 1.219 | -18.83\*\*\* |
|  | (-0.714) | (-0.777) | (-0.819) |
| Jordan | -1.328 | 2.047\* | -1.752 |
|  | (-0.85) | (-0.962) | (-1.056) |
| Kazakhstan | -0.709 | 1.605 | -1.774 |
|  | (-0.632) | (-0.92) | (-1.024) |
| Kenya | -0.428 | 2.084 | -2.015 |
|  | (-0.722) | (-1.065) | (-1.057) |
| Kuwait | 0.375 | -18.07\*\*\* | 0.298 |
| ``` | (-0.596) | (-0.803) | (-1.029) |
| Kyrgyzstan | -1.235 | 0.606 | -4.394\*\*\* |
|  | (-0.726) | (-1.086) | (-1.108) |
| Latvia | -2.997\*\* | -1.458 | -20.13\*\*\* |
|  | (-1.117) | (-1.248) | (-0.859) |
| Lebanon | -0.45 | -19.04\*\*\* | -21.29\*\*\* |
|  | (-0.619) | (-0.826) | (-0.888) |
| Lesotho | -1.301 | 2.199 | -2.143 |
|  | (-0.952) | (-1.138) | (-1.137) |
| Liberia | 0.465 | 1.965 | -2.644\* |
|  | (-0.903) | (-1.289) | (-1.286) |
| Libya | -20.19\*\*\* | 1.89 | -0.658 |
|  | (-0.606) | (-1.051) | (-1.034) |
| Lithuania | 0.215 | -19.90\*\*\* | -19.40\*\*\* |
|  | (-1.295) | (-1.047) | (-1.082) |
| Macedonia | -0.898 | -1.531 | -21.15\*\*\* |
|  | (-0.599) | (-1.295) | (-0.898) |
| Madagascar | -0.907 | 1.052 | -2.713\* |
|  | (-0.872) | (-1.236) | (-1.163) |
| Malawi | 0.554 | 0.567 | -1.938 |
|  | (-0.886) | (-1.398) | (-1.214) |
| Malaysia | 0.524 | -0.435 | -1.249 |
|  | (-0.54) | (-1.077) | (-0.948) |
| Mali | 0.325 | 0.0138 | -2.571\* |
|  | (-0.823) | (-1.508) | (-1.177) |
| Mauritania | 0.525 | -18.03\*\*\* | -2.856\*\* |
|  | (-0.718) | (-1.034) | (-1.107) |
| Mauritius | 1.213 | 1.463 | -0.284 |
|  | (-0.984) | (-1.165) | (-1.493) |
| Mexico | -1.197\* | 1.311 | -2.414\* |
|  | (-0.546) | (-0.806) | (-0.956) |
| Moldova | -0.804 | 1.149 | -3.030\*\* |
|  | (-0.787) | (-1.058) | (-1.157) |
| Mongolia | -0.886 | 1.17 | -22.23\*\*\* |
|  | (-0.787) | (-1.063) | (-1.015) |
| Montenegro | 0.171 | -19.74\*\*\* | -20.17\*\*\* |
|  | (-0.749) | (-0.926) | (-0.951) |
| Morocco | -0.097 | 0.624 | -1.655 |
|  | (-0.789) | (-1.395) | (-1.172) |
| Mozambique | -0.195 | 1.251 | -1.424 |
|  | (-0.846) | (-1.211) | (-1.166) |
| Namibia | -0.871 | 2.020\* | -3.314\*\* |
|  | (-0.566) | (-0.859) | (-1.034) |
| Nepal | 0.352 | 1.109 | -2.280\* |
|  | (-0.787) | (-1.171) | (-1.124) |
| Netherlands | -0.198 | -19.86\*\*\* | -18.16\*\*\* |
|  | (-0.925) | (-0.864) | (-0.937) |
| Nicaragua | -1.083 | -0.189 | -2.077\* |
|  | (-0.744) | (-1.121) | (-1.046) |
| Niger | -0.33 | -0.427 | -3.624\*\* |
|  | (-0.814) | (-1.286) | (-1.188) |
| Nigeria | 0.45 | -18.11\*\*\* | -1.661 |
|  | (-0.77) | (-1.062) | (-1.126) |
| Norway | 0.161 | -19.90\*\*\* | -17.62\*\*\* |
|  | (-1.042) | (-0.868) | (-0.92) |
| Oman | -1.495 | 1.719 | -2.656\* |
|  | (-0.785) | (-1.037) | (-1.335) |
| Pakistan | -0.287 | 1.42 | -2.633\* |
|  | (-0.698) | (-1.061) | (-1.043) |
| Panama | -0.0868 | 0.811 | 0.516 |
|  | (-0.648) | (-1.027) | (-0.943) |
| Papua New Guinea | -0.288 | 2.760\* | -3.728\* |
|  | (-0.856) | (-1.078) | (-1.485) |
| Paraguay | -0.443 | -0.0707 | -3.568\*\* |
|  | (-0.661) | (-1.099) | (-1.195) |
| Peru | -0.0494 | 0.252 | -2.145\* |
|  | (-0.561) | (-0.912) | (-0.959) |
| Philippines | -0.807 | 1.062 | -21.96\*\*\* |
|  | (-0.742) | (-1.013) | (-0.992) |
| Poland | -0.409 | -19.78\*\*\* | -19.61\*\*\* |
|  | (-0.678) | (-0.773) | (-0.884) |
| Portugal | -0.529 | -20.32\*\*\* | -0.0808 |
|  | (-0.759) | (-0.759) | (-1.339) |
| Republic of the Congo | 0.359 | 1.612 | -1.346 |
|  | (0.842) | (1.199) | (1.149) |
| Romania | -2.585\* | 0.313 | -2.302 |
|  | (-1.112) | (-0.900) | (-1.314) |
| Russia | 0.442 | 0.127 | -0.962 |
|  | (-0.518) | (-0.909) | (-0.932) |
| Rwanda | -0.852 | 2.448 | -3.987\* |
|  | (-1.281) | (-1.384) | (-1.648) |
| Saudi Arabia | 0.833 | 1.86 | 1.238 |
|  | (-0.848) | (-1.402) | (-1.121) |
| Senegal | 1.158 | 0.0116 | -1.908 |
|  | (-0.741) | (-1.444) | (-1.149) |
| Serbia | 0.162 | -19.23\*\*\* | 0.298 |
|  | (-1.136) | (-1.043) | (-1.407) |
| Sierra Leone | 0.289 | 0.762 | -3.681\* |
|  | (-0.93) | (-1.564) | (-1.621) |
| Singapore | 0.218 | 1.437 | -18.37\*\*\* |
|  | (-0.949) | (-1.326) | (-0.981) |
| Slovakia | -0.103 | -19.22\*\*\* | -19.93\*\*\* |
|  | (-0.699) | (-0.824) | (-0.898) |
| Slovenia | -1.144 | -20.36\*\*\* | -19.28\*\*\* |
|  | (-0.869) | (-0.75) | (-0.869) |
| South Africa | -0.0284 | 0.584 | -1.015 |
|  | (-0.524) | (-0.871) | (-0.886) |
| South Korea | -0.494 | 0.216 | 0.562 |
|  | (-0.451) | (-0.744) | (-0.815) |
| Spain | -1.177\* | -1.414 | -19.03\*\*\* |
|  | (-0.545) | (-0.926) | (-0.804) |
| Sri Lanka | -0.000184 | 0.736 | -2.406\* |
|  | (-0.652) | (-1.08) | (-1.114) |
| Sudan | 1.773 | -17.71\*\*\* | 0.43 |
|  | (-0.979) | (-1.143) | (-1.246) |
| Suriname | -1.268 | 1.411 | -20.78\*\*\* |
|  | (-0.728) | (-0.905) | (-0.917) |
| Swaziland | 0.196 | 1.41 | -1.245 |
|  | (-0.659) | (-1.056) | (-0.998) |
| Sweden | 0.71 | -19.52\*\*\* | -18.17\*\*\* |
|  | (-0.837) | (-0.879) | (-0.96) |
| Syria | -22.25\*\*\* | -20.37\*\*\* | -0.304 |
|  | (-0.989) | (-1.175) | (-1.343) |
| Tajikistan | -20.64\*\*\* | 2.667\* | -2.876\* |
|  | (-0.79) | (-1.185) | (-1.244) |
| Tanzania | 0.497 | 0.669 | -1.514 |
|  | (-0.859) | (-1.532) | (-1.173) |
| Thailand | -1.182\* | 0.855 | -3.226\*\* |
|  | (-0.573) | (-0.858) | (-1.01) |
| Togo | 0.142 | 0.645 | -3.267\*\* |
|  | (-0.781) | (-1.27) | (-1.135) |
| Tunisia | 1.963\* | 1.81 | 1.463 |
|  | (-0.967) | (-1.47) | (-1.18) |
| Turkey | 1.362\*\* | 0.0929 | 0.336 |
|  | (-0.52) | (-1.061) | (-0.905) |
| Turkmenistan | -0.000153 | 2.514 | -21.27\*\*\* |
|  | (-1.501) | (-1.681) | (-1.239) |
| Uganda | 0.794 | -18.52\*\*\* | -0.76 |
|  | (-0.872) | (-1.187) | (-1.173) |
| Ukraine | -0.987 | 0.952 | -1.983\* |
|  | (-0.627) | (-0.95) | (-1.001) |
| United Arab Emirates | 0.738 | 3.514\* | -19.53\*\*\* |
|  | (-1.762) | (-1.579) | (-1.615) |
| United Kingdom | -0.161 | -0.438 | -0.902 |
|  | (-0.416) | (-0.745) | (-0.871) |
| Uruguay | -2.643\*\* | -0.508 | -20.59\*\*\* |
|  | (-0.866) | (-0.894) | (-0.864) |
| Uzbekistan | 0.102 | 2.439\* | -2.557\* |
|  | (-0.855) | (-1.205) | (-1.203) |
| Venezuela | 0.114 | 0.593 | -1.317 |
|  | (-0.497) | (-0.815) | (-0.882) |
| Vietnam | 2.651 | 4.601\*\* | -22.82\*\*\* |
|  | (-1.373) | (-1.475) | (-1.56) |
| Yemen | -0.432 | 0.352 | -1.559 |
|  | (-0.742) | (-1.182) | (-1.05) |
| Yugoslavia / Serbia-Montenegro | -0.92 | -0.553 | -2.118\* |
|  | (0.644) | (1.123) | (1.023) |
| Zambia | 0.577 | 1.171 | -2.04 |
|  | (-0.705) | (-1.089) | (-1.092) |
| Zimbabwe | 0.795 | 0.712 | -1.244 |
|  | (-0.772) | (-1.282) | (-1.092) |

Robust standard errors in Parentheses.

Two tailed significance tests. \*\*\*p ≤ 0.001, \*\* p≤ 0.01, \* p ≤ 0.05

**APPENDIX FIGURES**

**Figure A1: Marginal Effect of Demand Type(t-1) on Recurrent Demand(t)**

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1. Regan and Norton 2005. [↑](#footnote-ref-1)
2. Cingranelli, et al. 2014 [↑](#footnote-ref-2)
3. Jaggers and Marshall, 2013 [↑](#footnote-ref-3)
4. World Bank, 2015 [↑](#footnote-ref-4)
5. United Nations Population Division 2015). [↑](#footnote-ref-5)
6. Regan and Clark, 2015. [↑](#footnote-ref-6)
7. Specific coding rules in Banks and Wilson 2015 User’s Manual. [↑](#footnote-ref-7)
8. Geddes et al. 2014. [↑](#footnote-ref-8)
9. Cingranelli et al. 2014. [↑](#footnote-ref-9)
10. Gibney et al. 2015. [↑](#footnote-ref-10)
11. Ethnic Power Relations Data v3.0, Wimmer et al. 2009. [↑](#footnote-ref-11)
12. Protesters are capable of lobbying multiple demands during a protest event. We consider up to three demands in our analyses. [↑](#footnote-ref-12)
13. The state can respond with multiple tactics or methods to the same protest event. We consider up to three state responses in our analyses. [↑](#footnote-ref-13)
14. Omitted values are not produced by the multiplicative function of the Disruption Cost Index. [↑](#footnote-ref-14)